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Rheumatic Aortic Valve Disease with Severe Ventricular Dysfunction and Pulmonary Hypertension Treated by Transcatheter Aortic Valve Replacement 9 Years after Mitral Valve Prothesis

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BACKGROUND

Transcatheter aortic valve replacement (TAVR) is reserved for patients with high risk for open heart surgery and is usually addressed to old patients with severe comorbidities. This is an expensive technique involving an experienced multidisciplinary cardiologic team and careful preparation of the patient. However, young age and presence of significant aortic regurgitation can be limits in indication of this procedure.

OBJECTIVES

We present the case of a 59-year-old man, with known rheumatic valve disease, in permanent atrial fibrillation, with surgical replacement of the mitral valve with mechanical valve 9 years ago, who developed severe aortic stenosis with moderate aortic regurgitation and progressively developed severe ventricular dysfunction (LVEF=20%, LVEDV=140 ml), severe pulmonary hypertension (sPAP=80 mmHg) and congestive class IV NYHA heart failure.

MATERIAL AND METHODS

The patient was considered as very high/inacceptable operative risk for redo surgery with severe aortic stenosis and moderate regurgitation in the presence of bi-ventricular failure, with very low LVEF and pulmonary hypertension. Coronary angiography and aortography were performed, with normal coronary arteries. Aortic measurements were done by angiography, angio-CT and transesophageal echocardiography in preparation of TAVR. Under general anesthesia with intubation, TAVR was performed with Core Valve 29, with minimal residual aortic regurgitation and no intraprocedural complications. Favorable in-hospital course with regression of dyspnea and fatigue and amelioration of echocardiographic parameters was registered. On discharge LVEF was 33%, sPAP 73 mmHg, after 1 month LVEF was 40% and tricuspid regurgitation was regressive. Parameters were even better and he was in NYHA class II at 3 months, so surgery for tricuspid annuloplasty was considered unnecessary at this moment.

CONCLUSION

For high risk patients with severe aortic stenosis, severe symptoms and depressed systolic function, TAVR can offer a chance for amelioration and sometimes can be a bridge to more invasive surgical procedures. Our case was younger than other patients addressed with this technique and also had moderate aortic regurgitation and disputable contractile reserve, but results confirmed evident benefit and even improvement in tricuspid regurgitation and pulmonary hypertension.

Difficult to Treat Infections in Chronic Granulomatous Disease – Case Reports

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OBJECTIVES

Chronic granulomatous disease (CGD) is a genetic primary immunodeficiency disease characterized by the disability of phagocytes to produce bactericidal superoxide anions (O2-) because of a defect in the NADPH oxidase. This increases susceptibility to fungal or bacterial infections, especially with catalase-positive microorganisms.

METHODS

We report the cases of two patients, brother and sister, both suffering from CGD. In the female's case the skin lesions had appeared 9 years earlier, after giving birth, on the episiotomy line, and had extended to the axillae over the course of the following 6 months. The male patient presented the same evolution, 4 years earlier, with lesions initially on the scrotum, with subsequent extension to the axillae. The patients had received multiple courses of antibiotics before presenting in our clinic.

At admission both patients presented local pain with open comedones, painful papules, inflammatory and erythematous painful nodules with fistulas and draining sinuses, fibrosis, "bridge" scars, hypertrophic and keloidal scars, contractures in both axillae and perianal region with pressure releasing purulent exudate from multiple sinuses.

Laboratory tests revealed leukocytosis with neutrophilia, and intense biologic inflammatory syndrome in both patients. The smears showed: fibrin +, leukocytes 3+, with 95% polymorphonuclear cells, Gram-positive intra- and extraleukocytic cocci and bacilli. The cultures identified in the female Corynebacterium striatum and methicillin-susceptible Staphylococcus aureus in the male's sample.

Phage susceptibility testing was performed for both strains. We used 5 bacteriophage mixtures: PYO, INTESTI, STAPHYLOCOCCAL (Eliava BioPreparations, Tbilisi, Georgia), PHAGYO, PHAGESTI (JSC "Biochimpharm", Tbilisi, Georgia). Testing results were negative for all mixtures.

They received antiobiotic therapy according to the antibiogram result, but periodic evaluation showed regression of local symptoms with persistence of pain. The 3 months evaluation showed negative cultures and persistent inflammatory syndrome for both patients.

CONCLUSIONS

Typical cases of CGD, our patients experienced repeated infections with different germs. Deficient neutrophils can defend against most infections, but not against catalase positive pathogens.

Another important issue in CGD patients is that a persistent inflammatory syndrome with no signs of infection can cause intestinal and kidney complications.

In our hard-to-treat patients, with frequent infectious occurrences, we considered phage therapy a very good option. Because the readily available phages were not active on the identified germs, we aim to treat the patients with specific phages, isolated in reference centers such as Georgia.

Acknowledgement: Partially supported through POSDRU/159/1.5/S/141531.

Hyponatremia and Syndrome of Inappropriate Antidiuretic Hormone Secondary to Varicella- Zoster Pneumonia in a Renal Transplant Patient

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INTRODUCTION

The syndrome of inappropriate antidiuretic hormone is a clinical entity defined by hyponatremia and plasma hypo- osmolality due to inadequate antidiuretic hormone secretion in the context of normo or hyper- volemia.

CLINICAL CASE

A 60- year old female, renal transplant recipient, is hospitalised in the rheumatology department for crural zona zoster. Treatment with oral acyclovir is initiated. The patient devellops asthenia and a persistent cough. Thoracic scan shows bilateral infiltrates and broncho- alveolar lavage fluid is positive for varicella- zoster virus (200000 copies/ ml), that is present also in the blood at the same titer. The diagnosis of varicella- zoster pneumonia is made and the patient receives intravenous acyclovir. Laboratory results show progressive hyponatremia of 108 mEq/L and the patient is transferred to the nephrology department. At arrival the patient is conscient but asthenic. There is no clinical sign of dehydration. Blood pressure is normal at 120/80 mmHg. Neurological examination is normal. Renal function is stable, with a creatinine of 2,5 mg/dl. Plasma osmolality is decreased at 253 mOsm/ kg. Urine osmolality is inapropriately increased at 300 mOsm/kg. Cerebral CT scan is normal. Thyroid function is normal. The hyponatremia resolved progressively with fluid restriction.

DISCUSSION

In this case of a immunosupressed patient the crural zona- zoster was complicated by the apparition of varicella- zoster pneumonia. The hyponatremia seems secondary to the pulmonary involvement. Laboratory and imagistics exams have excluded cerebral or endocrine causes.

CONCLUSION

Severe hyponatremia devellopped secondary to a syndrome of inappropriate antidiuretic hormone in the context of varicella- zoster pneumonia in a renal transplant patient.

Contrast Enhanced Ultrasound (CEUS) Assessment of Renal Microvascular Damage in Patients with Essential Arterial Hypertension

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BACKGROUND

The renal impairment in essential arterial hypertension (AHT) is a major factor for cardiovascular events and mortality. Structural and functional changes of renal microvasculature are difficult to diagnose in different stages and new methods are necessary for diagnosis, evolution and therapy.

PURPOSE

To identify the significance of real-time CEUS assessment for renal microvascular perfusion damage in AHT patient (pts).

METHODS

38 AHT pts (Grade I – 5 pts, Grade II – 5 pts and Grade III – 28 pts, 14 with diabetes and 6 with chronic kidney disease (CKD); aged: 24-75 y, Female=18, Male=20), treated according to the 2013 ESH/ESC Guidelines and 10 healthy adults were investigated by CEUS with sulfur hexafluoride. Renal microvascular perfusion was evaluated in early cortical phase (N=10-14 sec), late cortical phase (N=15/20-40 sec) and medullar phase (N=45-120sec). Time–intensity curves (TIC) were analyzed by Contrast Dynamics software using: arriving time (AT), time to peak (TP), peak intensity (PI), area under the curve (AUC) and mean transit time (MTT). Results: After i.v. administration of contrast agent the images were recorded for 3 min. In early cortical phase the enhancement times were: 12-14 sec in healthy subjects, 20-23 sec in all AHT group (grade I=19-22 sec, grade II=15-18sec, grade III=20-24 sec and more in pts with diabetes=26-29 sec and CKD=34-35 sec). In late cortical phase the times were increased in all AHT pts (24-45 sec) and more in diabetes (30-53 sec) and CKD pts (38-59 sec) vs. healthy (15-39 sec). In medullar phase the values were small increased, at all AHT group (48-108 sec) and more in diabetes (55-114 sec) and CKD pts (65-108sec) vs. healthy (43-112 sec). CEUS renal phases were prolonged at AHT pts in all grades and more in diabetes and CKD pts. TIC analyze were similar: AT in AHT group is 10sec, in diabetes 25 sec and in CKD 34sec vs. healthy 11sec. TP in AHT pts is 48sec, in diabetes 58sec, in CKD 44sec vs. healthy 42sec. PI in AHT group is 19.71%, in diabetes 19.73%, in CKD 10.47% vs. healthy 25.12%. AUC were decreased in all groups: 1404%sec in all AHT group and 750%sec in CKD pts vs. healthy 1760%sec. TIC parameters (TP, PI and AUC) accurately assess the renal microvascular impairment in different stages.

CONCLUSIONS

1. Renal microvascular perfusion damage is present and progressive increase in all grades of hypertension and associated comorbidities (diabetes and CKD).

2. CEUS is a reliable, non-invasive, simple and safe method to evaluate in real time the renal microvascular damage.

False Negative Aggressive Malignant Melanoma of the Scalp

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Cutaneous melanoma is considered the most aggressive form of human cancer and therefore remains a major health problem. Advanced melanoma remains in this century, a continuous clinical challenge for the physicians, because its low response rates at current therapeutical approaches.

We are presenting the case of a 55 years old patient, without associated pathology, who addressed to our clinic, one year ago, for the appearance of a purplish oval lesion, covered by a hematic crust, with dimensions of 5/3,5 cm, at right parietal. The dermatoscopic exam revealed that this lesion did not have features of a melanocytic lesion and we could see a reticular/ globular pattern, without the presence of melanin pigment. We want to mention that this lesion was recently traumatized and has no history of an preexistent lesion. One opinion about the dermoscopy aspect suggested a benign lesion, a seborreic keratosis.

A 6mm punch biopsy was performed and the histopatology reported a malignant melanoma. Due to the size and to the lesion location, we conducted surgical excision with flaps reconstruction, under general anesthesia. The second histopathology report concluded that the lesion is a level V Clark malignant melanoma.

The patient had the BRAF mutation present, but he refused treatment with Vemurafenib, due to it's high cost, almost 6000euros per month. The PET-CT scan, done soon after the surgery, and the Whole Body RMN done at the six months follow-up, showed no pathological changes. The 9 months follow-up revealed eight cutaneous metastases and after another two weeks, bone pain appeared and motor deficit of the left upper limb. The cerebral CT scan showed multiple brain metastases and ultrasound revealed multiple liver and spleen metastasis. In present time, the patient is conscious but his general condition rapidly deteriorated, with neurological impairment like motor deficit of the upper left limb, aphasia, dyspnea, dysphagia, sialorrhoea.

Due to its aggressiveness and its rising incidence word wide, we need to have a better detection and prevention mechanisms of malignant melanoma, especially in early stages, that can be resolved mainly by surgery and wide margin excision.

Keywords: malignant melanoma, brain metastasis, neurological impairment, prevention, early diagnosis.

Interleukin 8- Prognostic Marker in Malignant Melanoma

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Cutaneous melanoma still remains a major health problem world-wide, because its aggressiveness and resistance to current treatment strategies, for the advanced stages. As recently shown, the neoplastic process can be an immune-mediated disease, and therefore intense research in this field is seeking to establish new immune-related therapeutical approaches, to unveil new biomarkers, that can orient these therapies. Among the chorus of immune-related molecules, interleukin 8, has its voice heard, in processes like angiogenesis, hypoxia, and this series of events that lead to advanced metastasis.

Interleukin 8 (IL-8) or CXCL8 is an immune-related molecule that has in the last years a growing interest in melanoma research domain, and it is actually a chemokine produced by a large array of cells like: macrophages, epithelial cells, airway smooth cells and endothelial cells, and as well by malignant cells from multiple cancer types. This chemokine can be a potent promoter of angiogenesis, inducing migration, phagocytosis, intracellular Ca2+ increase, exocytosis, activation of respiratory burst. Its functions in tumor genesis are mainly in neo-vascularization, inflammation processes. A study published several years ago showed that in in vitro cellular models, IL-8 concentrations correlate with the number of IL-8-producing tumor cells and when the authors tested this hypothesis in human subjects serum, interleukin 8 concentrations correlated with tumor burden, stage, survival and objective responses to therapy. And that's why, IL-8 can become a useful biomarker.

High levels of interleukin 8 have been registered in patients with metastatic melanoma and a decrease of serum IL-8 level have been described as a result of chemotherapy or immune-therapy. Melanoma angiogenesis was one of the first reported processes and still is a subject of intense research because this is the crucial event triggering metastasis, mainly in young adults.

Interleukin 8 is one of the main promoters of angiogenic activity in endothelial cells, increases their proliferation and survival, sustains the migration of cancer cells, endothelial cells, and activates infiltrating inflammatory cells at the tumor site. CXCR1 and CXCR2 receptors, specific for IL-8, were also found increased in cancer cells, infiltrating neutrophils, tumor-associated macrophages and endothelial cells, meaning that in the tumor microenvironment is a regulatory loop sustained by interleukin 8. IL-8 over expression, along with CXCR1 and CXCR2, was proven to induce tumor progression, metastasis and angiogenesis in human melanoma, when specific antibodies were used for IL-8 and its receptors. These antibodies could inhibit melanoma angiogenesis, and

suppressing interleukin 8 could be a new therapeutical approach in combination with other immune-therapy agents.

Taking into account the difficulties of cutaneous melanoma patients' management, the immune surveillance at the skin level is the organ that harbours both the tumorigenesis in melanoma and the therapeutical targets for future immune-therapies. Interleukin 8 is a glimpse of the complex immune network that lies within tumor escape and where to search for immune-therapeutical targets in skin melanoma, and therefore chemokines like IL-8 can be empowered with biomarker capability of pin-pointing disease progression but as well monitoring therapy efficacy.

Brachytherapy Boost to Reirradiation for Recurrent Scuamous Cell Carcinoma of the Skin: a Case Report

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OBJECTIVES

Whilst localized squamous cell carcinoma (SCC) is most commonly treated, at high risk patients, by surgery and radiotherapy, the treatment options for locoregional recurrence after previous irradiation are limited. Here we present a case of an inoperable previously irradiated recurrent SCC treated by reirradiation using dose escalation by high-dose-rate (HDR) brachytherapy.

MATERIALS AND METHODS

We report a case of a 64 year-old man, diagnosed with multiple SCCs of the face, located left preauricular, right eye medial angle and left infraorbital region, which underwent multimodal treatment for each tumor site: surgical resection and adjuvant electron beam teleradiotherapy to a total dose of 40Gy/post surgical tumoral bed. After 12 months, the patient presents with a painful, ulcerated, 3 cm left infraorbital skin lesion, with extension in the left nasal lateralwall. The histopathological and imunohistochemestry findings after tumor biopsy identified recurrent SCC. Surgical excision was considered not feasible. Due to patient's medical history (type 2 diabetes mellitus, right sylvian artery ischemic stroke, multiple cardiovascular heart comorbidities) radiotherapy was considered. The patient was reirradiated by photon external beam radiotherapy (EBRT) to a total dose of 40 Gy to the planning target volume (PTV), with 200 cGy per fraction, one fraction per day, using a 3 field treatment technique. After completing EBRT brachytherapy boost was administered by HDR 192Ir surface applicator to a dose of 10.5 Gy in 3 fractions at 1 cm depth. 3 HDR catheters were sited on the mold at 1 cm intervals, with the central catheter situated along the middle of the infraorbital tumor remnant. During radiotherapy patient presented grade 3 skin toxicity and grade 2 eye toxicity, according to Radiation therapy Oncology Group (RTOG) Acute Radiation Morbidity Scoring Criteria.

RESULTS

Four weeks following completion of radiation therapy clinical exam and head and neck magnetic resonance imaging showed complete response and increased quality of life.

CONCLUSION

Further studies are needed to confirm photon EBRT and brachytherapy dose escalation as a treatment option for recurrent SCC high risk patients.

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Long Term Outcome in Patients with Epithelial Ovarian Adenocarcinoma

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AIM

To assess the long term outcome after multimodality treatment (chemotherapy, surgery, radiotherapy) in patients with ovarian adenocarcinoma.

PATIENTS AND METHODS

Medical records of 76 consecutive patients, aged 54 years (range, 18-74), with epithelial ovarian adenocarcinoma diagnosed between 2004 and 2014 were retrospectively reviewed. Patients underwent primary debulking surgery and adjuvant chemotherapy (n=57, 75%) or neo-adjuvant chemotherapy and interval debulking surgery (n=14, 18.4%) or palliative chemotherapy alone (n=5, 6.6%). Platinum based chemotherapy (at least 4 cycles) was administered in all patients. Radiotherapy as adjuvant treatment or after recurrence was administered in 15 patients (19.7%). Serum VEGF and CA125 were measured by enzyme-linked immunosorbent assay (ELISA) and chemiluminescence.

RESULTS

Most patients presented with advanced ovarian adenocarcinoma (stage III/IV, 72.5%). At diagnosis, serum CA125 was elevated in 87% (mean value 475 IU/mL); VEGF levels were assessed in 11 patients (mean value 847 pg/ml). Progression free survival (PFS) for stages IIIC and IV was 39 and 14 months respectively. After a follow-up of 43.4 months (5-120), median overal survival (OS) was 62 months, with 3 years OS of 64%.

Clinical prognostic factors identified were performance status 2 vs. 0/1 (HR=2.4, p=0.029), and extrem BMI (lower then 18 or higher than 30 HR=1.9, p=0.04). In patients with elevated VEGF levels (>400pg/ml) median OS was only 16 months.

Surgical prognostic factors identified showed that patients with residual disease had an increased risk of recurrence and death (HR=6.93, p=0.0001 and HR=4.36, p=0.001) compared with patients with no residual disease after surgery. Similar results were obtained either by sequence surgery-chemotherapy or neoadjuvant chemotherapy-surgery (HR=1.3, p=ns).

Pathology prognostic factors were tumour grading (G2/ G3 vs. G1) HR=1.8, p=0.05) and the expression of VEGF protein and Ki67 (>10%) in tumour tissues (immunohistochemical staining).

In 4 patients treated with a monoclonal antibody against VEGF (bevacizumab) after progression on multiple lines of chemotherapy, PFS was 3.7 months.

CONCLUSION

Despite combined therapies, the outcome of patients with ovarian cancer remains poor. Performance status, grading and residual tumour volume were independent prognosis factors.

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High Sensitivity CRP – Its Role in Peri-Operative Cardiovascular Risk Assessment in Non-Cardiac Surgery

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Inflammation plays a central role in the process of initiation and progression of atherothrombosis and is a trigger in the pathological process of cardiovascular disease. The developing of new inflammation biomarkers comes from the need of improving the identification of at-risk asymptomatic patients and for better predicting future cardiovascular events especially in patients that need to undergo moderate to high risk surgery.

CRP is an acute-phase reactant and nonspecific marker of inflammation, produced predominantly in hepatocytes as a pentamer of identical subunits in response to several cytokines. Interleukin (IL)-6, one of the most potent drivers of CRP production, is released from activated leukocytes in response to infection or trauma and from vascular smooth muscle cells in response to atherosclerosis. The high sensitivity CRP is a extremely sensitive test that can accurately detect very low levels of CRP in apparently healthy individuals. Patients with levels of high sensitivity CRP greater than 3 mg/l are at risk of coronary syndromes and stroke. The MRFIT (Multiple Risk Factor Intervention Trial) was the first of many primary prevention, prospective epidemiological studies to show a strong relationship between levels of hsCRP and mortality from CVD in high-risk middle aged men. A similar association between increasing hsCRP levels and subsequent rate of MI and stroke was found in an analysis of apparently healthy men.

Studies have shown that high preoperative hsCRP patients (> 3mg/l) were the ones that had a significant cardiovascular history, received cardiovascular medication or received steroid therapy. The high level of hsCRP in preoperative evaluation was associated with longer postoperative hospital stay and delayed complications in orthopaedic elective surgery.

Hs-CRP and NT-proBNP substantially improve risk prediction when added to an established predictive tool. The biochemical marker-based risk score may be useful for accurately risk-stratifying vascular surgery and non-cardiac surgery patients.

CONCLUSION

High sensitivity CRP is a new and important tool in the preoperative cardiovascular risk assessment and in major cardiac events prediction after moderate and major surgery. HsCRP in association with other biomarkers and investigations may guide the management of the patient by delaying the surgery and guiding the medical therapy.

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Hypertensive Crises - Uncontrolled Primary Hypertension or an Endocrine Cause?

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INTRODUCTION

Detailed investigation of hypertensive crisis in a young, obese, dyslipidemic male, may lead to a case of secondary hypertension.

CASE REPORT

A 40 years old obese, dyslipidemic, smoking male was admitted in the Endocrinology department at Elias Hospital in Bucharest, for the investigation of hypertensive crises, diagnosed in the last month, with a maximum BP of 220/100 mmHg.

Clinical exam showed obesity, with facial erythema and truncal adiposity, BP of 150/100 mmHg (under 10 mg Amlodipine and 2mg Rilmenidine) and HR of 90 bpm.

Biological exams showed mild hypercalcemia of 11.5 mg/dl, with a high PTH level of 104 pg/dl. Thyroid function was normal (TSH=0.983 mIU/dl) and the 8 AM cortisol after 1 mg Dexamethasone was suppressed (<1 mcg/dl). The serum metanephrines and normetanephrines were normal (34.and 42.4 pg/ml), as was the aldosterone/renin ratio (1.09) measured while taking allowed antihypertensive medication (Verapamil).

Cervical sonogram revealed a 0.9/0.4 cm mass on the posterior side of the right thyroid lobe, which was consistent with a parathyroid adenoma. Abdominal CT revealed a 12/9 mm left adrenal mass, diagnosed as a non-secreting adenoma. Parathyroid Tc99 scintigraphy confirmed a right inferior parathyroid adenoma measuring 0.9/0.3 mm.

DIAGNOSTIC

Medical history, clinical signs and the response to the classical treatment for hypercalcemia lead to the correct diagnosis – primary hyperparathyroidism, secondary hypertension and non-secreting adrenal macroadenoma.

TREATMENT

We started volume repletion with isotonic sodium chloride solution and i.v. loop diuretic, which lowered the calcium levels down to 10.9 mg/dl and normalized the BP. The patient was referred for surgery, considering his age and high BP values.

DISCUSSIONS

Primary hyperparathyroidism is generally a clinically silent disease, with visible signs and symptoms only when calcium levels increase more than 12 mg/dl. In extremely rare cases, it is accompanied by high BP.

CONCLUSION

The association between adrenal mass (which proved to be a non-secreting adenoma) and a parathyroid adenoma, in a 40 year old man recently diagnosed with hypertension, is a relatively rare condition, but correct diagnosis enables a complex therapeutic strategy, including surgical treatment.

The Functional Ability in Elderly with Peripheral Arterial Disease

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INTRODUCTION

Peripheral arterial disease (PAD) affects about 15-20% of people aged over 70 years. 1/3 of all patients diagnosed with arterial disease of the lower limbs are symptomatic. The disease is associated with many cardiovascular risk factors. In people with coronary artery disease (CAD), the presence of PAD increases mortality risk by 25%. Assessing the functionality of elderly patients follows: walk-assessment of functional status, the transfer and balance, activities that depend on the morphological and functional status of the lower limbs.

METHODS

It is an observational study of 73 patients (37% males, mean age of 73.9±6.60 ys) hospitalized in the Geriatric Department. Inclusion criteria: clinical symptoms which disappear after a few minutes of standing - pain, discomfort, dull pain, heaviness, fatigue, tension, cramps or burning sensation of the calf, thigh, hip and buttocks, which is reproduced at a similar level while walking. Oscillometry value ≤0.8. We further assessed the index ankle/arm (ABI) and peripheral arterial Doppler ultrasounds. The assessment of functional capacity for included patients was done using standardized rating scales ADL (Activities of Daily Living) and IADL (Instrumental Activities of Daily Living). We pursued associated risk factors: smoking, hypertension, ischemic heart disease, diabetes, carotid atheromatosis, dyslipidemia.

RESULTS

63% of included patients were women. 79.45% confirmed BAP by ABI values founded between 0.55-0.9 and Doppler investigation without stenosis. 94.82% of patients with PAD had at least 1 associated risk factor. The assessment of functional capacity showed a decrease of ADL in 31.03% of patients and of IADL in 51.72% for all the patients, with differences by age, gender, number of associated diseases and risk factors. Patients diagnosed with PAD have a majority of rural origin. The age group 75-84 years (both genders) has the largest percentage of PAD. The prevalence of diabetes was 40% which 66% of them were women. Prevalence of associated cardiovascular risk factors was 92%, with a higher proportion among women. Dyslipidemia, simple or mixed, as a risk factor pairing met in 2/3 of the patients studied, with a higher share of women among all.

CONCLUSIONS

There is a proportional relationship between the presence of PAD and functional capacity in elderly patients studied with differences depending on the age group of associated risk factors and standardized scale used to measure functionality. It is an ongoing study with assessment of physical performances of the patients.

Keywords: elderly, peripheral arterial disease, functional capacity

A Very Rare Cause of Congestive Heart Failure: Renal Arteriovenous Fistula

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INTRODUCTION

In both open and laparoscopic nephrectomy, the standard approach to the division of the renal pedicle is the individual isolation and occlusion of the renal artery followed by the renal vein. En bloc ligation of the renal vessels may result in the development of postnephrectomy renal arteriovenous fistulas (RAVF).

CASE REPORT

We report the case of a 40-years-old woman presenting with exertional dyspnea and right flank pain due to a large communication between the right renal artery and the inferior vena cava with high-flow fistula diagnosed imagistically 20 years after right lumbar nephrectomy for nonfunctioning kidney related to stone disease. AVF may lead to arterial hypertension, abdominal bruits, tachycardia, flank pain and congestive heart failure or may be clinically silent and found incidentally during an imagistic examination. Current treatment options include either angiographic embolization or open surgical ligation of the feeder vessel, with or without the excision of the fistula sac. Our patient underwent surgical intervention with successful excision of the aneurysmal sac and abolition of the fistula.

CONCLUSIONS

This case is a reminder that joint ligation of the renal hilum should be discouraged as it may result in the development of postnephrectomy RAVFs. The case particularity is the delayed recognition of a RAVF, a late complication following nephrectomy, diagnosed after the patient had started manifesting symptoms of congestive heart failure.

Hypogastric Artery Ligation as First Step Procedure Followed by Total Exenteration in Haemorrhagic Invasive Cervical Cancer

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BACKGROUND AND AIMS

Locally invasive cervical cancer can be sometimes associated with life threatening hemorrhage necessitating vascular ligation to stop the bleeding as first step procedure. Once the general biological status of the patient is improved the patient can be submitted to neo-adjuvant oncologic treatment followed by radical exenterative surgery.

METHODS

A 49-year-old patient was hospitalized in emergency for massive vaginal bleeding. Local examination revealed the presence of a large hemorrhagic cervical tumor with urinary bladder and rectal invasion. Due to the fact that all local methods of stopping the bleeding failed, bilateral hipogastric artery ligation was performed.

RESULTS

Bilateral hipogastric artery ligation was successfully performed and the vaginal bleeding was stopped. The patient was submitted to neo-adjuvant radio-chemotherapy and 1 month after ending the oncological treatment a total exenteration with pelvic and lymph node dissection was performed. At one year follow-up the patient is free of recurrent disease

CONCLUSIONS

Bilateral hipogastric ligation can be performed in selected cases, to stop a massive bleeding originating from cervical malignancies. After ending neo-adjuvant treatment curative pelvic resection is efficient in order to obtain a good control of the malignancy.

R1 Resection for Disseminated Abdomino-Pelvic Recurrences after Stage IIIc Epithelial Ovarian Cancer

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BACKGROUND AND AIMS

The benefits of cytoreductive surgery in advanced ovarian cancer and its' recurrences has been widely demonstrated during the last century. Although complete R0 resection is not feasible in all cases, a maximal cytoreductive effort seems to be always justified.

METHODS

We presented the case of a 46 year old patient diagnosed with recurrent epithelial ovarian cancer with left iliac artery invasion. The patient was submitted to neo-adjuvant chemotherapy. However, after 4 cycles of chemotherapy, the tumoral burden remained constant and seemed not to response anymore to treatment. In consequence, the patient was submited to surgery.

RESULTS

The pelvic recurrence was resected with remnant tumoral tissue at the level of the left iliac artery invasion. Although an R0 resection was not feasible, surgery provided an important reduction of the tumoral mass, which had become unresponsive to chemotherapy. In this way a high number of old unresponsive to chemotherapy cells were resected. The patient reported a 18 months survival after resection.

CONCLUSIONS

The principles of cytoreductive surgery can be applied with good results at the moment of second cytoreduction too, even if complete R0 resection is not feasible.

Urinary Bladder Reconstruction by Augmentation Enterocistoplasty after Resection of Locally Invasive Cervical Tumor

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BACKGROUND AND AIMS

To demonstrate the effectiveness of urinary bladder reconstruction by enterocistoplasty after partial cystectomy for locally invasive cervical cancer.

METHODS

Patients surgically treated for cervical cancer with limited local invasion of the urinary bladder, in which a partial cystectomy was performed, were submitted to urinary bladder reconstruction by augmentation enterocystoplasty. The principle was the one applied in pediatric surgery for neurologic bladder treatment.

RESULTS

Augmentation enterocystoplasty was successfully performed in two patients diagnosed with locally invasive cervical cancer. In both cases the local invasion involved both ureteral ostiums, so resection consisted of radical hysterectomy with bilateral adnexectomy, partial cystectomy en bloc with the invaded ureteral ostiums and distal ureters, pelvic and para-aortic lymph node dissection. The urinary tract continuity was re-established by re-creating a neo-bladder using an enteral loop, which was applied on the remnant urinary bladder, in which the two ureters were re-inserted by bilateral uretero-neocystostomy. The ureteral reimplantations were protected by placing double J urinary stents, which were removed 21 days postoperatively, while the anastomosis between the remnant urinary bladder and the enteral patch was protected by keeping in place the urinary catheter for 2 weeks. The postoperative course was uneventful in both cases.

CONCLUSIONS

Augmentation enterocystoplasty is a safe reconstructive method for patients with urinary bladder invasion from cervical cancer, in whom a partial cystectomy involving the urinary trigone is needed.

Psychological Status in Elderly Patients with Left Ovarian Tumor - Clinical Case -

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INTRODUCTION

On global and national level we are witnessing a major demographic aging phenomenon. Half of the population over 70 years is diagnosed with various types of cancer. It is common to encounter polipathology and cancer in elderly patients.

MATERIAL AND METHODS

Female aged 70 years with anti-hypertension treatment is presented to the emergency room for metrorrhagia recently installed (2 weeks) accompanied by abdominal pain in the hypogastrium, without irradiation.

CLINICAL EXAMINATION

Good general condition, normal skin color, anxiety, insomnia, emotional lability, poor appetite, BP=140/80 mmHg, HR=80 bpm rhythmic, palpable tumor formation in hypogastrium, ≈ 18 cm diameter, relatively well defined, mobile on superficial and deep plan, painful on palpation, with no signs of peritoneal irritation.

RESULTS

Abdominal CT with and without iodized contrast (iv and orally) highlights: uterus size of 55/77 mm axially with a calcification of 27/31 mm; Left latero-uterine formation of about 94/133 mm, heterogeneous, with fluid areas, calcifications and moderate iodophilic areas of possible affiliation of left ovary; Right latero-uterine formation of 208/33 mm in axial plan, predominantly fluid and parafluide density, discreet iodophilic (right adnexal formation); lympho-ganglionic image of 8/8 mm in left paraceliac axial plan and others smaller similar images on latero-aortic left plan. No free fluid in the peritoneal or pleural cavities.

THE STAGE DIAGNOSIS

Ovarian formation (with indication for surgical removal and histopathological analysis), essential hypertension, depression and anxiety disorder. After informed consent signed by patient, it was practiced the abdominal surgery. Laparoscopic: left ovarian giant tumor (15/20 cm), adherent to the uterus, left parameter and front of the rectum. It was practiced total hysterectomy and bilateral adnexectomy, after separation between the tumor and the rectum; nodes removing; drainage of the Douglas space. Histopathological examination of the surgical play - left ovarian cyst adenocarcinoma without tumoral dissemination in the uterus, right ovary and lymph nodes. Evolution of surgical wound was favorable, but the patient's

mental condition worsened. Psychological consultation evidenced by GDS scale=13/15 pts, MMSE=24/30 pts - anxious-depressive affective disorder accompanied by mild cognitive impairment, and it has been established appropriate psychological and pharmacological treatment.

CONCLUSIONS

Geriatric assessment tools used on oncological patients should have an important role in cancer therapy decisions, because factors such as depression, comorbidities and cognitive status are independent prognostic factors towards classical (surgical and oncological) prognostic factors from the ECOG evaluation scale (The Eastern Cooperative Oncology Group).

Keywords: cancer, elderly patients, psychological status

Giant Incisional Hernia with Multiple Isolated Granulomas Included into the Hernia Sacks – Case Presentation

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OBJECTIVE

Suture granulomas are late postoperative complications that occur due to a tissue rejection response of the surgical suture. They usually develop in the surgical scar and the most important complications are abscess formation (with or without tegument expression) and incisional hernia formation. We present a case of a male patient with a giant incisional hernia and multiple particular suture granulomas.

METHOD AND MATERIAL

We present the case of a 63-year-old male patient, suffering from obesity, who had a giant recurrent incisional hernia, with a normal scar, without any signs of scar infection. He initially suffered an umbilical incarcerated hernia surgical procedure, but developed an incisional hernia. This was repaired by laparoscopic approach, however due to several postoperative complications (dynamic bowel obstruction with permeation peritonitis), he underwent another surgical intervention with prosthetic material removal and anatomic repair of the incisional hernia using multifilament surgical sutures.

RESULTS

The patient came back to the hospital with a giant abdominal defect (18/26 cm). Intraoperative we discovered multiple suture granulomas of 2/3cm in the hernial sack, very well isolated - similar to pearls in a shell- without any surface expression. We chose a substitution repair of the abdominal wall with a 20/30 cm dual-mesh, with total excision of the multifilament suture granulomas in the same operating time. The patient had no significant postoperative complications.

CONCLUSIONS

Dual mesh prosthesis is a salutary solution when the abdominal defect is wide. Suture granulomas, with or without abscesses or surface expression, are predisposing factors for incisional hernia formation, therefore it is preferable to use monofilament surgical suture both for anatomic wound closure and for prosthetic materials repairs.

Prevalence of Multidrug-Resistant Klebsiella Pneumoniae Strains, Isolated from Patients with Cardiovascular Disease

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Klebsiella spp. are common Gram-negative pathogens, frequently encounter in nosocomial infections. Their multidrug-resistant (MDR), associated with the production of enzymes as ESBL (extended-spectrum beta-lactamases) and carbapenemases is steadily increasing in the last decade, leading to very limited therapeutic options. Our aim was to establish the antibiotic profile of Klebsiella spp. and the prevalence of the ESBL and carbapenemases producing strains in clinical samples isolated from patients with cardiovascular disease.

MATERIALS AND METHODS

The study was performed on a group of 256 *Klebsiella spp.* strains, isolates from different clinical specimens. Antimicrobial susceptibility testing was done by disc diffusion method and CMI (Vitek 2 automated system Complex) methods. ESBL production was confirmed using the double discs test and carbapenemases production using modified Hodge test and E-test.

RESULTS

Out of 256 isolates, multiple resistance (cephalosporins/ aminoglycoside/ quinolones) was observed in 149 (58%) cases, of which 53 (21%) strains produced ESBL and 96 (38%) were resistant to carbapenems. From carbapenems resistant strain, only 41 of 96 (43%) strains produced carbapenemases.

CONCLUSION

Because extremely low therapeutic alternatives, antibiotic management policies with the implementation of control measures and strict epidemiological monitoring, are variants of greatest importance for hospital institutions, against rapid increase of microorganism's resistance.

Keywords: antibiotic sensitivity profile; ESBL; MDR; carbapenemases; double disk test; Modified Hodge test; E-test

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A Rare Case of Generalized Dystonia in an Adolescent Patient

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OBJECTIVES

We present the rare case of a non-familial primary generalized dystonia, which diagnosis is essential for a specific therapeutic option which significantly improves the patient's condition.

MATERIALS AND METHODS

This is a case study of a 15 years-old male patient who progressively developed a complex movement disorder; the onset of motor abnormalities was when he was 9 years-old, and manifested as moderate tonic contraction in the bilateral posterior muscles of the leg, which progressively increased in intensity and extended to the proximal muscles of the lower limbs, axial muscles of the trunk and of the upper limbs. There is no impairment of the facial muscles. These abnormalities become much more severe during walking with twisting contractions of the trunk, slight flexion of the knees. These abnormalities do not cause falls and are not accompanied by gait ataxia. The neurological examination has shown a generalized kinesigenic dystonia picture (see above) only mildly symptomatic in clinostatism; in the sitting position there is just a slight anterior flexion of the trunk (camptocormia). Dystonic movements are also present in the upper limbs distal muscles, exaggerated during a sustained posture. He has no motor weakness, no ataxia and his reflexes are normal. There are no sensory abnormalities and impairment of the cranial nerves. His speech is normal and he has no cognitive impairment; his IQ is 93 with a normal scholarship. There is no loss of consciousness or seizures in his history. The general medical examination is normal, with no hepatosplenomegaly or other internal organs abnormalities. All his hematologic and metabolic laboratory tests are normal, including the hepatic enzymes. The brain CT and MRI examinations show no abnormalities. All the neuroelectrophysiologic tests of the peripheral nerves and muscles have normal parameters.

RESULTS

The clinical diagnosis is primary generalized dystonia, with no history of familial transmission; the DYT1 gene testing found no abnormalities. The diagnosis is based on the above clinical and laboratory characteristics and the exclusion of other causes for secondary dystonia, in particular genetic metabolic diseases (mainly Niemann-Pick disease type C), sequelae after cerebral palsy, postencephalitic and posttraumatic dystonia. The only therapeutic option in this case is bilateral deep brain stimulation (DBS) in the internal globus pallidus nuclei, with a symptomatic long-term clinical improvement of the motor impairment.

CONCLUSION

This is a rare case of a non-familial, non-DYT1 primary generalized dystonia different to the classical Oppenheim disease, but with the same phenotypic clinical picture and the efficient treatment by DBS; such a case has to be differentiated to a secondary dystonia, due to the completely different unique therapeutic indication and prognosis.

Debulking Surgery in Endometrial Carcinoma with Disseminated Peritoneal Lesions

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BACKGROUND AND AIMS

Endometrial cancer is an aggressive gynecologic malignancy with an increasing incidence worldwide. While in patients diagnosed in early stages of the disease a good outcome is expected, cases presenting disseminated lesions at the moment of diagnosis have a poor prognosis. In these cases the most appropriate surgical approach consists in debulking surgery. The aim of our paper is to demonstrate the applicability of the principles of cytoreductive surgery in advanced stage endometrial cancer with peritoneal carcinomatosis.

METHODS

We present the case of a 65 year old patient had been initially diagnosed with a uterine endometrial adenocarcinoma two years before. At that moment she refused the surgical treatment. Two years later she presented for diffuse abdominal pain and subocclusive syndrome and was diagnosed with an endometrial tumor with disseminated peritoneal lesions.

RESULTS

The patient was submitted to a radical total hysterectomy en bloc with bilateral adnexectomy, total omentectomy, pelvic and parietal peritonectomy, total colectomy pelvic and para-aortic lymph node dissection. The lesions involving the visceral peritoneal surface of the small bowel and the mesenterium were destructed by electrofulguration. The histopathological findings revealed the presence of a well differentiated endometrial adenocarcinoma. Postoperatively the patient was submitted to adjuvant chemotherapy with taxanes and platinum salts. At a 2 year follow up the patient reported no recurrent disease.

CONCLUSIONS

The principles of debulking surgery in order to maximize the cytoreductive effort can be safely applied in cases with peritoneal disseminations with other primaries such as endometrial cancer.

Urinary Reconstruction Using a Digestive Tract Segment after Total Supralevator Exenteration with Maximal Urethral Preservation

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BACKGROUND AND OBJECTIVES

In patients with locally invasive cervical cancer in whom total supralevator exenteration is performed, urethral preservation is essential in order to re-establish the continuity of the urinary tract.

METHODS

Multiple surgical techniques have been explored in order to search for the ideal urinary reservoir with proper peristaltic function, a proper vascularization that is not affected by the neo-adjuvant radiotherapy. Moreover, the ideal continent urinary pouch must provide good diurnal and nocturnal continence, capacity and residual volume, minimal metabolic affection and preservation of an adequate renal function. It seems that the most appropriate viscera which presents all these characteristics is the right ileo-colon.

RESULTS

The right ileo-colic segment was prepared keeping the right ileo-colic artery as the unique vascularization source. The two ureters were re-implanted in the ileo-colic reservoir and the anastomoses were protected by stent placing while the anastomosis between the neo-bladder and the urethral stump was protected by keeping the urinary catheter in place for 21 days. The technique was performed in three cases with good oncological and urological function results. The urinary stents were removed in the 21st postoperative day.

CONCLUSIONS

In cases in which urethral preservation is possible, a neo-bladder can be successfully created in order to re-establish the continuity of the urinary tract. In order to avoid permanent ostomy which could significantly impede the quality of life.

Endocrine Hypertension Secondary to Cushing's Syndrome

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INTRODUCTION

Cushing's syndrome is the collection of symptoms and clinical signs reflecting the prolonged and overexposed tissues to hypercortisolism, causing numerous systemic effects including hypertension, truncal obesity, impaired glucose tolerance and osteoporosis.

CASE PRESENTATION

We present a case of a female patient aged 38 years, admitted for endocrinological evaluation after 6 years of clinical signs and symptoms suggestive of hypercorticism. Clinical examination showed a plethoric facies, with truncal obesity and 3rd grade hypertension, very high risk group. Hormonal evaluation reflected elevated basal cortisol, elevated urinary cortisol in 24 hours, with a low value of ACTH. Paraclinical examinations, including the abdominal CT revealed a left adrenal adenoma, homogeneous, well-defined, of 38/25 mm, with the right adrenal gland at the lower normal values. Based on clinical examination and paraclinical investigations, the patient was diagnosed with Cushing's syndrome, caused by an ACTH independent left adrenal adenoma, treated with laparoscopic adrenalectomy in the surgery department. Postoperative evolution was favorable with the remission of elevated serum and urinary cortisol with lowering of blood pressure values. Of note is that postoperative hormonal evaluation revealed a low level of serum cortisol, indicating the suppression of the remaining adrenal gland, suggesting the long evolution and of the undiagnosed disease extent.

CONCLUSIONS

We present a case of a female patient with grade 3 hypertension with very high-risk group, of endocrine etiology, due to an ACTH-independent Cushing's syndrome, caused by an adrenal adenoma.

Keywords: endocrine hypertension, hypercortizolemia, Cushing syndrome

High Efficacy and Low Toxicity of Concomitant Radio-Chemotherapy in Locally Advanced Head and Neck Cancer

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OBJECTIVES

The objectives of the present study were efficacy and toxicity of concurrent radio-chemotherapy, which aims to improve local control rate and micro-metastatic disease control.

MATERIALS AND METHODS

This was a retrospective study, conducted at the Institute of Oncology "Al. Trestioreanu" in Bucharest, between January 2010 and December 2012. We enrolled 34 head and neck cancer patients, with ECOG 0-1, 26 men, mean age 54 +/-years old. Patient data was gathered starting from the diagnosis date up to the last hospital visit. 22 patients (64.7%) were stage III, 12 patients (35.3%) were stage IV A. All the patients received a total radiotherapy dose of 70 Gy (35 fractions, 2Gy/fraction, 5 fractions/week, 7 weeks), at the same time with 3 cycles of chemotherapy using cisplatin 100 mg/m^2 by intravenous infusion for 1 day every 3 weeks.

31 patients General and local physical examination and the usual laboratory tests were performed in all the patients.

RESULTS

Treatment response rate was 70% (complete response 18%, partial response 52%). 21 patients (61.7%) benefitted from surgery, which was not a valid treatment alternative for the rest of the group for various reasons: complete remission, ECOG performance status 2-3 (after concomitant radio-chemotherapy), patient refusal or extended disease. Most common side effects were nausea and vomiting, neutropeni, mucositis, xerostomia, anemia, thrombocytopenia and kidney failure. One-year survival rate, depending on disease stage, was 100% for stage III and 73% for stage IVA, while 2- year survival was 85% for stage III and 53% for stage IVA.

CONCLUSIONS

In this study we showed that concomitant radio-chemotherapy in locally advanced head and neck cancer patients is associated with a high response rate, increased operability, with acceptable toxicity.

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Phaeochromocytoma Revealed by Type B Aortic Dissection

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INTRODUCTION

Pheocromocytomas are rare adrenal tumours secreting catecholamines. Cardiovascular complications of these tumours include ischaemic heart disease,acute myocardial infarction, cardiac arrhythmias, heart failure, pulmonary edema and acute aortic dissection. These complications can be life-threatening; therefore, all patients who present with manifestations that suggest excessive catecholamine secretion should be screened for pheochromocytoma.

CASE PRESENTATION

We report the case of a 48 years old man, smoker, with a recent medical history of sudden, sharp chest pain that irradiates to the inter-scapular region. The clinical examination showed high blood presure with systolic over 250 mmHg. The CT scan revealed a type B aortic dissection without extension under the diaphragm, but close to the origin of the left subclavian artery and a right adrenal tumor of 3.6 cm, necrotic in the center. The patient received catecholamine blockade before undergoing thoracic aortic endoprosthesis and carotid-suclavian by-pass.

The patient was then assessed in the endocrinology department. He was stable, of normal weight BMI=23kg/m^2, with no high blood pressure or abdominal pain. Laboratory findings revealed leukocytosis, mild anaemia and thrombocytosis. The hormonal evaluation showed normal cortisol levels in the morning and after the dexamethasone supression test and a normal aldosterone renin ratio. The 24 hours urinary normetanephrine and metanephrine levels were high, which confirmed the excess of catecholamines. Chromogranin A, calcium and PTH levels were within the normal range. The thyroid sonography showed no nodular masses (screening for MEN II syndrome was negative). The patient received catecholamine blockade before the right laparoscopic adrenalectomy was performed, with no complications during surgery. After the surgery the levels of catecholamine were back to normal and a remission of the hypertension was observed.

CONCLUSION

The presence of an undiagnosed pheochromocytoma at the time of an acute aortic dissection raises difficult management dilemmas. All patients with pheocromocytomas require long term postoperative surveillance.

An immunohistochemistry and genetic testing are needed in order to decide on a long term medical approach.

Keywords: phaeochromocytoma, aortic dissection

Liver Disease in Pregnancy

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BACKGROUND

Elevated liver enzymes in pregnancy are a sign of a liver condition associated to pregnancy or a sign of an unrelated disease. Some patients may present only mild symptoms conceiling severe liver cytolysis of less typical aetiology.

OBJECTIVES

In this study we highlight a few uncommon conditions occurring in pregnancy which revealed elevated liver enzymes during the 2nd trimester.

METHODS

Data was extracted from patient files in the Bucharest University Emergency Hospital from 1.01.2014-31.12.2014. We took into consideration singleton pregnancies that showed liver enzymes higher than normal in the 2nd half of pregnancy. We have also excluded cases of biliary disease.

RESULTS

During selected period we have diagnosed 200 cases of preeclampsia, 30 cases of HELLP syndrome and 150 of viral hepatitis. Liver enzymes AST and ALT were >70 IU/L in 10 cases who used high doses of progesterone to prevent pregnancy loss. Interestingly, five patients were found to have abnormally elevated liver enzymes (8 times higher than normal) in the absence of another apparently obvious pathology. Patient history and drug consumption offered very important information in these cases.

CONCLUSIONS

Less common viral infection, such as the one produced by parainfluenza virus, may occur during pregnancy showing persistent flu-like maternal symptoms, but causing liver cytolysis which is oftenly masked by selfmedication with acetaminophene.

Keywords: liver enzymes, cytolysis, pregnancy

Treatment Options for Cervical Insufficiency

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BACKGROUND

Cervical insufficiency (CI) is the inability of the cervix to retain a pregnancy in the 2nd trimester in the absence of clinical contractions or labor. The main risk factors are: structural cervical weakness due to inflammation, infection, hemorrhage or uterine distention, congenital or acquired cervical abnormalities caused by trauma or large conization. Patients may be asymptomatic, with no uterine contractions or may present with mild pelvic pressure, menstrual-like cramps and abundant vaginal discharge starting at 14-20 weeks of gestation. The main treatment for CI is cervical cerclage, which implies important risk factors. A successful alternative to cerclage with fewer risks is the use of vaginal pessary.

OBJECTIVES

We present our experience in the management of CI in the Department of Obstetrics and Gynecology of the Bucharest Emergency University Hospital between 01.01.2012-31.03.2015.

MATERIALS AND METHODS

Data about diagnosis of "cerclage", "cervical insufficiency" and "vaginal pessary" was extracted from patient files in the Department of Statistics in the Bucharest Emergency University Hospital between 01.01.2012-31.03.2015.

RESULTS

A total number of 202 cases with CI were found in the selected time period. A transvaginal cervical cerclage was performed in 112 cases using the McDonald suture. The Arabin pessary was used in 60 cases, showing good results, with delivery at 37-38 weeks of gestation.

CONCLUSIONS

The transvaginal cerclage using the McDonald technique was constantly used in our hospital prior to January 2014 for patients with CI, but it has been gradually replaced by the use of the Arabin pessary which has shown successful outcomes so far. We encourage the use of vaginal pessary in carefully selected patients due to its fewer adverse outcomes and lower costs. We recommend closer monitoring for vaginal infections and chorioamniotitis in all patients and hospitalization for those who cannot restrain their physical activity at home.

Keywords: cervical insufficiency, pessary

Role of Pregnancy Associated Plasma Protein-A (Papp-A) as Marker for Intrauterine Fetal Growth Restriction

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OBJECTIVE

Intrauterine growth restriction (IUGR) is a major determinant of perinatal morbidity and mortality.The incidence of intrauterine growth restriction (IUGR) is estimated to be approximately 5 percent in the general obstetric population Standard diagnostic methods like sonography are accurate, but they can not be employed as the screening tools. Lately, it has been proposed that there might be an association between IUGR and placental dysfunction. Fetal growth is dependent on genetic, placental and maternal factors. The fetus is thought to have an inherent growth potential that, under normal circumstances, yields a healthy newborn of appropriate size.

PAPP-A is a biochemical marker in first trimester screening undertaken at 11–13 weeks gestation. Low levels have been associated with adverse pregnancy outcome: intrauterine fetal growth restriction, stillbirth and preterm delivery.

This study is aimed at evaluating the possible association of serum and PAPP-A levels in the first trimester with IUGR in chromosomaly normal pregnancies.

MATERIAL AND METHOD

In this cohort study, 26 normal singleton pregnancies were evaluated.IUGR was defined for a fetus whose estimated weight is below the 10th percentile for its gestational age and whose abdominal circumference is below the 2.5th percentile.

Serum PAPP-A levels were measured in women at 11 to 13+6 weeks of pregnancy. At term, the cutoff birth weight for IUGR was 2,500 g All the women were followed up to determine the time of delivery and to be categorized as with or without IUGR, . PAPP-A levels were compared between the groups.

RESULTS

Characteristics and outcomes of study group are shown in Table 1.

Values of PAPP-A measured in the study ranged from 0.09–27.60 IU/liter.

The median serum PAPP-A was significantly lower in patients with IUGR (0.6 vs. 0.9 MoM; p=0.034)

Study group characteristics	
Age	Median 31,8 (27,8-36,3)
Parity	Nulipare 12 (%) (46,15%)
Etnicity	Caucaziene 25 (96,15%)
	Non caucaziene 1 (3,84%)
Gestational age at sampling	Median 12s+4z (11s+5z-13s+2z)
BW (g)	Median 3250 (3010-3640)
<10th percentile	3 (11,5%)

CONCLUSION

This study showed that low level of serum PAPP-A during the first trimester is associated with IUGR. Biochemical markers like PAPP-A can be a useful tool to screen for impaired placentation associated with fetal growth restriction, fetal death in-utero, pre-eclampsia and abruption placentae. Ultrasound and pulsed Doppler are diagnostic modalities that can assist in confirming impaired placentation looking at fetal biometry and umbilical artery Dopplers. We recommend confirmation of fetal wellbeing at 28–30 weeks with a serum PAPP-A level below the 1st centile.

Pulmonary Metastasectomy for Renal Cell Carcinoma

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Pulmonary metastasectomy (PM) for metastatic renal cell carcinoma is an established method of treatment for selected patients. The incidence of intrathoracic lymph node metastases (ITLNM) and outcomes remain controversial. The purpose of this study was to determine the incidence of ITLNM and the outcome of PM for metastatic kidney cancer.

From January 2010 to December 2013, 48 patients (31 men, age 61.7 ± 9.0 years) with metastases from kidney cancer underwent PM and systematic lymph node dissection with curative intent. By long term follow-up we tried to estimate survival and to determine prognosticators of survival.

Complete resections could be achieved in 45 patients (93.75%). Surgical morbidity was 8.3% (4 patients) and there was no mortality. ITLNM were found in 23 (47.9%). 29 patients were still alive after at least one year follow up. Patient age (≥ 70 years), female gender ($p = 0.016$), incomplete resection and number of metastases (≥ 2 metastases) were associated with inferior survival. The presence of ITLNM and type of lung resection did not significantly affect survival in our series.

PM and systematic lymph node dissection can be performed safely with low morbidity and mortality. Long-term survival is achievable in selected patients even with ITLNM. We suggest that systematic lymph node dissection should be recommended in every patient due to the high prevalence of ITLNM. Patients aged 70 years or older should be selected carefully for PM.

Effect of Platelets Antiagregant Clopidogrel on Erythrocytes Aggregation and Sedimentation

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OBJECTIVE

The expected outcome was that addition of clopidogrel *in vitro* to blood samples from patients would result in the decrease of erythrocytes sedimentation.

METHODS

Erythrocyte sedimentation curves method. Whole blood (0.8 ml) was collected on 0.1 ml 1% EDTA and then was added 25 or 50 μl normal saline solution of clopidogrel. The final concentrations were in the range 1 - 8 μg/ml, of the same order as cumulated concentration of clopidogrel and its metabolites in clinical pharmacokinetics. Experiments were performed on a number of 360 blood samples obtained from 18 groups of 20 patients. Sedimentation of erythrocytes was recorded using a camera and captured data was stored on a computer.

Comparison of curves using f2 and Area Under Sedimentation Curves (AU-SC) metrics. For comparison of mean curves corresponding to different clopidogrel concentrations it were applied two metrics from biopharmacy: f2 metric used for comparison of dissolution curves, and areas under plasma concentrations curves (AUC) of drugs used in pharmacokinetics.

RESULTS

Global analysis gives evidence that the clusters of the sedimentation curves shifted down and into right, indicating a decrease and delay of sedimentation. Initial slopes and extent of sedimentation decreased linearly on clopidogrel concentration within the 1 – 4 μg/ml range. An apparent saturation effect was observed over the 4 - 8 μg/ml concentration range. Time-lag in sedimentation curves increased with clopidogrel concentration but the dependence was less defined. For comparison of mean curves corresponding to different clopidogrel concentrations it were applied two metrics from biopharmacy: f2 metric used for comparison of dissolution curves, and areas under plasma concentrations curves (AUC) of drugs used in pharmacokinetics. F2 metric indicated that, based on 10 % threshold from dissolution theory, curves at higher concentrations of clopidogrel were dissimilar to control curves, i.e. clopidogrel modified sedimentation. Taking the usual threshold in clinical studies – 20 %, sedimentation curves were dissimilar, starting with 1 μg/ml concentration of clopidogrel. The areas under average sedimentation curves decreased linearly at clopidogrel concentration within the 1 – 4 μg/ml rang CONCLUSIONS. As a final conclusion, due to the parallel outcome between platelets and erythrocytes aggregation, the authors consider that presence or absence of effect of clopidogrel on platelets aggregation can be estimated using the surrogate effect upon erythrocyte sedimentation processes.

Pregnant Women's Choice Regarding Way of Delivery Correlated with Social Status in Romania

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INTRODUCTION

Lately we have been witnessing an increase in incidence of caesarean section, both nationally and internationally. According to WHO, the increasing rate is higher in developed countries than in the less developed or in developing countries. The reported incidence reaches up to 42% in China or Brazil. In Romania the incidence of caesarean section has average rates but is continuously growing. Unlike Romania, in the US and UK, there is the concept of "cesarean on demand", without having a medical reason. The real percentage of cesarean sections "on demand" in Romania is unknown.

OBJECTIVE

The current study is being held in Filantropia Clinical Hospital Bucharest and aims to assess the option of pregnant women regarding way of delivery and the evaluation of stated reasons in association with their social status. This evaluation aims to detect a possible reason for increased incidence of caesarean section, knowing that the upward trend of the incidence of primary caesarean section depends mainly on factors other than medical ones.

MATERIALS AND METHOD

The investigated patients are pregnant women who present to Filantropia Clinical Hospital at the emergency room or by attending a course organized by the hospital – Future Mother School. Information is collected by filling a questionnaire, then subsequently stored, physically and digitally and processed with special programs like Microsoft Excel and Statistica.

RESULTS

The group whom this statistic refers to is composed of 227 pregnant women, of whom 110 participated in the "Future Mother School" and 117 were first introduced to the emergency room of the hospital. Among pregnant women participating to the course, 33% expressed their option for cesarean section compared with 40% in the other group. Among the reasons for choosing cesarean section were: fear of labor and pain, less risk to the fetus, the discomfort created by waiting the due date but also doctor's recommendation and other reasons that are not medical indications for cesarean. After processing the data we can appreciate the fact that the option for cesarean delivery is the result of women's poor medical knowledge and also the physician's influence.

A Case of Hemodialysed Patient with Extrapulmonary Lymph Nodes Tuberculosis

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INTRODUCTION

Tuberculosis lymphadenitis is the most common form of extrapulmonary tuberculosis. 50% of extrapulmonar location are represented by tuberculosis of lymph nodes. In the absence of pulmonary tuberculosis, ganglionary involvement makes the diagnosis to be difficult and tardive, delaying the onset of the treatment. Mediastinum lymph nodes location compel us to the differential diagnosis with: sarcoidosis, carcinoma, sarcoma, lymphomas, infectious adenitis, collagen or sistemic diseases.

CASE PRESENTATION

A 63 years old woman, type 2 diabetics with insulin, chronic hepatitis B, diabetic nephropaty with chronic kidney disease (CKD) in hemodialysis (HD) was referred one year ago with nonspecific pulmonary symptoms (cough, dyspneea) and disphagya. The X-ray detected large left superior mediastinum and chest CT - scan highlighted polylobulate left paraaortic mass with necrosis tendency, in relation to large mediastinum vessels. Multiple tumoral biopsy emphasized sarcoidosis (Ziehl-Nielsen initial coloration was negative). After initiation of corticosteroids (preceded by treatment with Lamivudine), the clinical evolution was unfavorable and we decided reevaluating the histological sections (were positive for tuberculosis) and another CT - scan was made. The angiotensin-converting enzyme was in normal limits. The diagnostic was reconsidered, establishing extrapulmonary lymph node tuberculosis. After 5 months of tuberculostatics, the clinical and paraclinical evolution was favorable, with significantly decrease of mediastinal tumor and reducing symptoms. The corticosteroid doses were gradually excluded.

DISCUSSIONS

The case particularity is represented by disease association (diabet melitus, CKD in HD, chronic hepatitis B and mediastinum tuberculosis of lymph nodes). Differential diagnosis between sarcoidosis and extrapulmonary tubercolusis was very important, because corticosteroids administered for sarcoidosis could decompensate liver function (replication of hepatitis B virus) and glycemic status. The tuberculostatic treatment could decompensate liver and eye function, and doses must be reduced for Clcr <15 ml/min/1,73m^2. In addition to this, the polylobulate mass in relation with large and vital mediastin vessels compel to closely monitor and relatively reserved prognosis.

Budd-Chiari Syndrome in a Young Patient

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OBJECTIVES

The main causes of the Budd - Chiari syndrome are polycythemia vera and kidney tumors. The incidence of renal tumors in Eastern Europe was reported as 8% in men and 4% in women. Since the symptoms usually appear only in advanced stages, disease diagnosis is late and prognosis is unfavorable.

Materials and methods

A 48-year-old woman with a family history of cervical cancer (sister) and pancreatic cancer (father), presented with enlarged abdomen, marked physical fatigue and diffuse abdominal pain. The clinical examination showed: ascites fluid in large quantity, cavo-portal collateral circulation and peripheral edema.

Laboratory investigations revealed: hepatic cytolysis (AST = 201UI / l (1-31), ALT = 132UI / l (1-31)), cholestasis (DB = 0.64mg / dl (0-0.3) GGT = 187UI / l (1-30) ALP = 177U / l (39-100)), liver failure (INR spontaneously = 2.22; total protein level = 4,78g% (albumin = 50.8%)) and marked increase of the ovarian tumor markers (CA125 = 816 IU / ml (0-35)).

Abdominal ultrasound showed fluid in the peritoneal cavity, dilated suprahepatic veins, enlarged left kidney with heterogeneous content of the pelvis that does not capture the contrast agent.

Diagnostic and therapeutic paracentesis was performed and the following results were obtained: ascites fluid discharged was serocitrin, with total proteins of 2.6 g / dl and non-specific cytology (rare lymphocytes, rare PMN, rare mesothelial cells without atypical cells).CT scan detected a voluminous mass in the left kidney with vascular invasion extending from the inferior vena cava to the right atrium. Metastases were described in the lung, bone and lumbar aortic lymph nodes.

RESULTS

The patient was sent to a urological and cardiovascular surgery service where it was decided that all therapeutic resources had been exceeded.

CONCLUSIONS

The case was characterized by sudden onset of ascites without revealing history for this event, thereby more differential diagnoses were considered (the first being hepatic cirrhosis).According to the findings of the clinical examination (ascites, collateral circulation on the flank), of the ascites fluid analysis (protein content at the upper limit without atypical cells) and of the imaging investigations (tumor with vascular extension from the left renal vein to the right atrium and suprahepatic vein thrombosis) it was concluded that Budd-Chiari syndrome was the cause of ascites. This case reveals that one must consider the possibility of kidney cancer in a patient presenting with Budd-Chiari syndrome, being known that renal neoplasm is the second most frequent cause of this syndrome, the first being polycythemia vera.

Keywords: ascites, renal cancer, Budd-Chiari syndrome

Study on Complex Effects of Occupational Exposure to Nonionizing Electromagnetic Radiation on Melatonin Secretion and Health in a Lot of Electricians – Stage 2011

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OBJECTIVES

Assuming that exposure to non-ionizing electromagnetic radiation fields of very low frequency (VLF-ELM) could inhibit melatonin secretion, thereby reducing its oncostatic and antioxidant effects, preventing sleep and impairing lipid metabolism, serum Ca and serum Mg levels (among others), we surveyed the health and melatonin secretion of workers exposed to ELM-VLF.

MATERIALS AND METHODS

In 2011 we investigated workers from 3 high voltage stations: 12 in Pitesti, Arges (Bradu Station), 8 in Braila (Salt Lake Station), 13 in Brasov (Darste Station).

We performed general clinical examinations, serum Ca, serum Mg, serum creatinine, blood count, urinalysis, SGOT, SGPT, total cholesterol, HDL, LDL, triglyceridemia, ESR.

Urinary melatonin/24h was measured by enzyme-immunoassay-F, ISO 17025, 2613 to:

Subgroup A (8 subjects) - Monday after the weekend.

Subgroup B (12 subjects) - Friday after weekly cumulative exposure.

RESULTS AND CONCLUSIONS

The 31 men and 2 women had a mean age of 42.18 years (limits: 17-63 years) with no statistically significant differences between groups in any respect.

39.39% had cardiovascular diseases, 36.36% - eye diseases, 6.06% - osteo-muscular-articular diseases, 6.06% - digestive diseases and 72.72% were overweight.

Laboratory analyses showed no significant alterations. But 93,94% had dyslipidemia, correlated with overweight, but maybe also influenced by shift work 12 to 24 hours, including night work.

Unexpectedly, more subjects had decreases in urinary melatonin in subgroup A (37.5%) than in subgroup B (16.66%). We deduce that suspension of occupational exposure to ELM-VLF for 48h is too short to restore normal pattern of melatonin secretion in the most sensitive subjects.

In all, 25% had decreases in urinary melatonin, and, by that, poor antioxidant and antioncogene protection. As age, smoking, weight or associated pathology did not seem to play any obvious part, that leaves the door open to the assumption that the effect might be due to occupational exposure to ELM-VLF. The subjects were relatively young, so a cohort survey for decades to come is necessary to capture the occurrence of any radiation induced cancers.

Correlations between Plasma Lipid Levels in Patients Presenting Metabolic Syndrome over a Period of 8 Years from Diagnosis

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OBJECTIVE

This research studies the correlations between plasma lipid levels, cholesterol and triglycerides, in patients presenting a maximum of 4 diagnosis criteria of the metabolic syndrome.

METHODS

This study is an analytical epidemiological observational cohort type I, performed on a sample of population with the aim of determining the development of plasma lipid levels and the correlations between them using each patient's medical history. The 134 patients were reexamined every 2 years for a period of 8 years (moments T0, T1, T2, T3), when blood samples were collected. The metabolic syndrome was defined according to the IDF criteria, NCEP ATP III and EGIR in order to determine the syndrome from early on-set. Three groups of patients were studied: control group, presenting less than 3 metabolic syndrome diagnosis criteria, group B, presenting high plasma lipids and hypertension and group C, presenting 4 criteria. Data were processed using SPSS version 15. Chi square test and Pearson coefficient were used for statistical analysis.

RESULTS

Patients presenting less than 3 metabolic syndrome criteria (group A) showed a percentage of 46,99 high cholesterol in T0, reaching 53,01 in T2 and decreasing to 35,37% in T3, while only 3% presented high triglycerides levels in T0, the value rising to 15% in t1, 13 % in T2 and 10% in T3. In group B, 100% of patients had high cholesterol and triglycerides levels in T0, but both values suffered a decrease to 54% and 16% in T3, after targeted treatment. Although 77% of patients in group C presented high cholesterol levels in T0, the percentage in T3 showed only 57%, decrease observed also between T0 and T3 in the triglycerides levels, from 55% to 30%. Correlations between plasma lipids levels show in group A at T1 and T2 and group B in T2 a moderate, same direction, correlation between cholesterol and triglycerides, a good, same direction, correlation between cholesterol and triglycerides in group C in T0 and a moderate one in T3.

CONCLUSIONS

High plasma lipid levels not only appear in patients suffering with metabolic syndrome, but their levels can decrease under targeted treatment. The moderate or good correlations, with the same direction between these values show the common tendencies of these parameters.

The Management of Hypertension. What Telemedicine Has to Offer and How Informed Are We?

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BACKGROUND

Telemedicine represents any medical intervention performed without direct contact between doctor and patient, encouraging medical diagnosis, patient care and distance learning related to health. For optimum use it is necessary to have minimal knowledge about its existence. The purpose of the present research is to analyze the quality of hypertension management in terms of awareness and use of automated monitoring solutions that are available today in the electronic market of health services.

MATERIALS AND METHODS

Since 2013 we interviewed by telephone a number of 112 patients who were admitted at the Cardiology Clinic Emergency Hospital Bagdasar Arseni known with systolic Blood Pressure >160 mmHg. The interviewing was conducted at six months after discharge, monitoring the effectiveness of treatment, the usage of the internet, mobile solutions, and monitoring devices. Statistical analysis was performed in Excel and EpiInfo.

RESULTS

Patients questioned were in average 56.73 years old, with a mean body mass index of 30.15 kg/m^2, of which 58.92% were female, 27.67% from rural areas. Percentage of Internet use for documenting disease was 24.1%. The most frequently used devices with internet connection were: 23.21% personal computer, smartphone 16.07% and 2.67% tablet users. Analysis of the usability of mobile solutions for monitoring diary or functional parameters correlated with average income resulted that average income patients monitor their Blood Pressure more frequently than those with low incomes (OR 0.2359, p Chi square test, Fisher exact p = 0.032 - statistically significant, 95% confidence interval). Percentage use of ambulatory blood pressure devices was 35.71%.

CONCLUSIONS

Concerning known hypertensive patients, good management of blood pressure is closely related to home monitoring of its values. Currently, patients are not aware of new devices and telemedicine solutions on the market. Internet seems to be a good way to promote medical education in order to control risk factors and also for presenting new monitoring solution automatically transmit data. The downside is the limited monthly income that greatly limits their use because of the higher acquisition costs. No statistically significant corellation between the use of the blood presure devices and optimal control of blood presure was observed during this study.

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The Toponymic Heritage of Bucharest. Bucharest's Hospitals – an Administrative Act with Profound Significance for the Collective Consciousness

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OBJECTIVES

Over the years, the city developed mainly around the Princely Courts and around churches, monasteries and hospitals. These were the first administrative nuclei that led to the growth of surrounding residential areas. One cannot imagine the history of Bucharest without also considering the hospitals that were built here decades or even centuries ago. The city's districts were often situated around a hospital that eventually gave them its name. Wars, floods, epidemics, earthquakes, foreign occupations, demolitions have all taken a toll on Bucharest's health establishments, given their important role throughout all these disasters. The present study aims to inventory both hospitals that have borrowed the names of the streets or neighborhoods in which they are located, and also the hospitals that actually gave their name to the surrounding areas. We would also like to give a brief description of several important historical landmarks and urban characteristics of these medical institutions.

MATERIALS AND METHOD

In order to achieve our objectives, we accessed multiple bibliographical resources in the relevant literature, available both in printed and electronic format. We conducted an interdisciplinary research, studying materials written by specialists in different scientific fields: history of medicine, history of Bucharest, toponymy, architecture, urbanism and others.

RESULTS

In Bucharest, from over forty hospitals and a few clinics belonging to the state's health network, many have taken, officially or sometimes informally, the names of the streets or the neighborhood they are situated in, such as Floreasca, Fundeni or Foişor Hospitals. However, there are also certain hospitals that have strongly influenced the city's toponymy, eg. Elias Hospital. We also identified instances where a health institution becomes known under a different name than the one that is found in official records, and that "nickname" subsequently becomes a geographical landmark in the community ("Marie Curie" Hospital, better known as Budimex).

CONCLUSIONS

Health settlements are civilizing factors that bear the hallmark of outstanding mayors and medical doctors alike. Trained in the Western Europe, these professionals have laid the foundation for the Europeanization of the Romanian society. Bucharest has borrowed significantly from its hospitals' history.

Acute Onset of Systemic Lupus Erythematosus with Extensive Organ Involvement

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OBJECTIVES

Manifestations of acute, life-threatening disease of connective tissue are rarely reported. Their early recognition and the start of specific treatment are crucial in changing the course of the disease. Systemic lupus erythematosus is the most common form of lupus. It is a chronic, autoimmune disease with a highly variable severity, from benign forms, with limited involvement, to forms with multiple visceral involvements.

We present a case of a patient with acute onset of SLE with multiorgan involvement.

MATERIALS AND METHODS

A 24-year old woman with no medical history arrived at the emergency room of a rural hospital with headache, dizziness, night fever, fatigue, sweating, chills, dysuria, upper abdominal pain and anorexia. Patient stated history of a tick bite. Following the imaging investigations (chest X-ray, abdominal ultrasound) and laboratory investigations (CBC=complete blood count), the diagnosis was nonspecific hemolytic anemia and nonspecific gastritis. After discharge, the patient returned to the hospital with the same symptoms, decrease of hemoglobin levels and new modifications on the chest X-ray. A transfer to the hematology department of Fundeni Hospital was requested, the diagnose being nonspecific interstitial lung disease and nonspecific hemolytic anemia.

Following imaging and laboratory investigations (chest radiography, cerebral, thoracic and abdominal CT, serological tests, CBC, ultrasound) the diagnosis was systemic lupus erythematosus with simultaneous pulmonary, skin, kidney, liver, pancreatic and splenic affections - changes that were not detected in the rural hospital. Conducting a differential diagnosis, Coombs test, bone marrow cell count and testing for Borrelia were also made.

RESULTS

Treatment was started with Solumedrol and repeated transfusions of plasma ,to increase the hemoglobin levels (from 4.5 g / dl in the first days of hospitalization to 15 g / dl at discharge). The patient received immunosuppressive therapy, and advised towards bed rest and avoiding pregnancy, remaining under surveillance.

CONCLUSIONS

Acute onset lupus is a rare pathology, often monosimptomatic and starting with an insidious onset. This case had an explosive debut with multi-organ damage, multiple systems being affected in about 5 days. This case reveals that we should consider an autoimmune disease, particularly SLE, in patients presenting with life-threatening diseases.

Keywords: systemic lupus erythematosus, autoimmune disease, acute start

Development of Digital Holographic Microscopy-Based Method for Investigation of Refractive Index of the Cultured Cells

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OBJECTIVES

Currently, the refractive indexes for the cells at individual level are very difficult to measure, being an integral physical parameter. The Digital Holographic Microscopy (DHM) is an innovative technique that has been already validated on biological samples and is used in many research centres to study various samples of interest in medicine, electronics, biology, material science etc. By using DHM one may evaluate the refractive index of the living cells either for fundamental investigation of the optical properties of the cells during a dynamic process or to determinate if cellular refractive index presents significant changes between normal and pathological cells. Its value is further linked with dry mass of the cell, an indicator of protein content.

MATERIALS AND METHODS

With a nanometric resolution along laser beam propagation axis, DHM allows to reconstruct, after a single exposure and without any contrast substances, a 3D image of a transparent sample. The two steps of DHM are hologram recording (experimentally) and image reconstruction (digitally). The experimental setup is based on the Mach-Zehnder interferometer. We use HeNe laser □=632.8nm, and a CCD video camera (Pike F421C Kodak sensor, 2048x2048pixels, 7.4pixel pitch, 30fps) for recording a digitized hologram. To obtain waves with the same wavefront curvatures in the CCD plane, identical microscope objectives are used in both reference and object arms. One single hologram (an intensity image) is sufficient to reconstruct the phase shift introduced by the transparent sample. To decouple the information for refractive index and height, we recorded two holograms of the same cell, in two different surrounding media, with very slightly different refractive index values. Following the hologram acquisition, the second step implies a numerical method based on the diffraction theory to obtain the reconstructed images. This has the aim to visualize details within the object and to compute the basic morphological and structural parameters (dimensions on all three axes and refractive index) from the phase shift introduced by the sample relative to the surrounding media. Further, the values of the phase shift are linked with clinically relevant parameters like: mean corpuscular volume, dry mass, protein content. To compute these pa-

rameters, the values from the initial phase shift map (before contrast enhancement) were considered. The same procedure is followed for each cell.

RESULTS AND CONCLUSIONS

Our work focused on changes induced in optical and shape-related characteristics of malignant cells versus normal cells (B16-derivated and NIH fibroblasts murine cell lines). Our preliminary results indicate that the cell refractive index and the height in case of the B16-F10 Murine Melanoma Cells Line are statistically similar to those obtained using other techniques. The validity of the refractive index measurement technique based on DHM is demonstrated on biological samples and contributes to developing clinically oriented research.

Association of Two Primary Tumours – Germinoma and Timic Tumor in a Patient Treated with rGH

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CASE REPORT

In august 2008 a 10-year old girl was submitted in our clinic for polyuria, polydipsia and bitemporal occipital headache that worsened in the last 2 months. A cerebral MRI was performed that showed a pituitary tumor of 1.5 cm. The patient was sent to surgery and the biopsy revealed a tumor with germinal cells so she was treated with 2 cures of chemotherapy (Carboplatin, Etoposide, Ifosfamide) in March and April 2009 and external radiotherapy in May-June 2009 (total dose 50.4Gy). Afterwards she started replacement therapy with L-thyroxin. In October 2010 her height was 136 cm (-3SD) and weight 43 Kg, Tanner P1B1. The IGF1 was low and 2 stimulation tests for GH secretion (clonidine, insulin) were negative indicating the GH deficiency. The basal cortisol was low as well (<1 mcg/dl) and at that moment she started treatment with hydrocortisone. The basal FSH, LH, and estradiol had prepubertal values at that time. The bone age was delayed (8.5 years). The check-up MRI showed no signs of restant tumor, relapse or cerebral metastasis, but the treatment with rGH was delayed for 6 month. In May 2011 she started therapy with rGH and after 6 month of treatment a timic tumor was seen on the thoracic CT. A timic biopsy performed by exploratory toracoscopy rulled out the possibility of secondary determination and the therapy with rGH was resumed. After 1 year of treatment she experienced some recovery of the growth deficit (0.6 SD).

PARTICULARITY

In spite of the current age (14 years) and absence of pubertal signs at the last visit, she received no sex hormone replacement therapy in order to optimise her height.

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Clinical Pharmacy Study Regarding Specific and Adjuvant Medication of Mild - Moderate Alzheimer's Disease Patients

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OBJECTIVES

We present a study of clinical pharmacy on pharmacotherapy of Alzheimer's disease. We assessed the evolution of patients who received a cholinesterase inhibitor (ChEI) treatment compared with patients who received treatment with a cholinesterase inhibitor associated with an NMDA receptor antagonist.

A secondary objective was to assess the therapeutic benefit of adjuvant medication administered to patients: cerebral vasodilators, nootropic or neuroregenerative.

MATERIALS AND METHODS

The study included 30 patients admitted to Chronic Disease Hospital "Sf. Luca", in the period 2010-2012, with mild- moderate Alzheimer's dementia, who received different treatment as follows: 15 patients received treatment with a cholinesterase inhibitor alone, in different concentrations and doses (group 1), while the other 15 receiving combination therapy cholinesterase inhibitor and memantine, an NMDA receptor antagonist (group 2).

Hospitalization period was two weeks each, followed by outpatient treatment and returning to control and tests at 3 and 6 months. We compared the outcome of patients in the two groups in terms of memory (Mini-Mental State Examination - MMSE), functionality (Activities of Daily Living -ADL, Instrumental Activities of Daily Living - IADL), overall damage (Reisberg scale) and behavioral disorders (Neuropsychiatric Inventory Questionnaire - NPI-Q).

We followed the evolution of the inclusion, at 3 and 6 months, as well as the drug interactions between pharmacological treatments used to treat Alzheimer's disease and drugs used to treat associated pathologies.

RESULTS

After processing the data it was found that 80% of patients are women and 93.33% of patients are past 75 years old. The frequency of the disease in the level of education: 76.66% of patients had elementary school and only 2 patients (6.66%) had higher education. These figures confirm the literature data that the continued involvement of neurons in various activities (solving crossword puzzles, reading) significantly reduce the frequency of dementia installation.

Rivastigmine and donepezil were the most prescribed ChEI. Galantamine, a slightly less clinical experience, was administered in only 2 of 30 patients (6.66%). There was no significant difference in efficacy between the donepezil and rivastigmine.

Most patients who had a cerebral vasodilator and /or a nootropic therapy showed posi-

tive developments in assessment tests. For half of the patients (15/30) there was used standardized extract of Ginkgo biloba for cerebral vasodilator therapy. As nootropic medication has been used frequently in patients: piracetam in the dosage of 800 mg/day (12/30) or pramiracetam in a daily dose of 1200 mg/day (9/30).

Comparative research has shown that in all rating scales, a larger number of patients in group 2 (ChEI + memantine) had positive developments compared with group 1 (ChEI): MMSE test 93.33% vs. 86.66 %; ADL test 86.66% vs. 40%; IADL test 100% vs. 73.33%; Reisberg scale 46.66% vs. 40%; NPI-Q scale 86.66% vs. 60%.

CONCLUSIONS

From this study, we can say that the benefits from the combination therapy of a cholinesterase inhibitor and NMDA receptor antagonist are superior to those obtained in patients treated only with cholinesterase inhibition.

Dermoscopy Is a Key Tool in the Detection of Subungual Melanoma

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INTRODUCTION

Dermoscopy makes it possible to visualize the distribution of melanin in the epidermis and papillary dermis, thus being an incontrovertible method to diagnose melanomas.

CASE REPORT

This paper presents a case of subungual melanoma of the right hallux which, for months previous to dermoscopic exam, had been treated for onychomycosis. The patient, a 54 years old male, noticed chromatique and thickness alterations on the nail plate for so he asked for medical help about 4 months before, when a systemic antifungal treatment was started. Unfortunately, the destruction of the nail plate continued despite the treatment, so when the patient reached our clinic the nail plate was destroyed about 90%, the nail bed was exposed and bleeding. The dermoscopic features such as polymorphous vascular pattern, blue-white veil and dark-grey blotches favored the diagnosis of hypomelanotic melanoma.

CONCLUSIONS

Subungual melanoma is an extremely rare entity compared to onychomycosis, but diagnosis confusions have a dramatic impact on life span. Dermoscopy is highly useful in the differentiation of the two diseases enabling early diagnosis of melanomas.

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Penile Cancer - Diagnosis and Treatment

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OBJECTIVES

The penile cancer is a rare malignancy, with an aggressive development and increased mortality in the absence of early and correct treatment. The psychological and social impact of this disease should not be overlooked, being extremely important for this type of patients, that are often young people with social and active sexual life. We aim to identify the most effective methods of diagnosis and treatment for penile cancer in the specific context of our country.

MATERIAL AND METHODS

Retrospective study conducted on casuistry of Urological Surgery Center and Renal Transplantation in Fundeni Clinical Institute, Bucharest, from 2000 to 2008.

RESULTS

131 patients with a mean age of 60.8 years (31-98 years), 26.5% of cases under 50 years. At the time of diagnosis most patients were in locally advanced stage: 50% T2, 28% T3. Survival at 5 years was 67.1%. N3 average survival was 4.5 months, compared to 45 months in N1 or N2. Out of a total 78 patients considered clinically without nodal invasion, 13 (16.67%) had at histopathology, tumor cells within the biopsied lymph nodes. Out of these patients 90% had a depth of invasion >6 mm.

CONCLUSIONS

Penile cancer is a disease of middle-aged men with a low social status. Although the disease is often neglected, primary tumor stage is a poor prognostic factor for disease-specific survival. Tumor grade and lymph node involvement are the most important prognostic factors for survival. There is an under staging of patients with local disease, hence the need for complex surgical treatment initiated at the time of diagnosis. In patients with advanced lymphatic invasion (N3), multi modal treatment is recommended. The approach of this pathology is complex and requires the existence of a multidisciplinary team in centers of reference.

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Thermal Imaging in Herpes Zoster

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BACKGROUND

Zoster represents the reactivation of Varicella virus. In the areas of skin affected by inflammatory changes and alteration in skin infrared emission might be expected.

MATERIALS AND METHODS

The objective is to establish the importance of thermal imaging in the follow up of Zoster. We used a thermal camera in order to assess if the evolution of the disease determines a thermal pattern. A 5 Zoster cases pilot study is presented. We clinically identified the disease for each patient, we took a thermal image of the affected area within the first week from the onset of the skin eruption and a second image was taken after a month.

Infrared thermography can be used for the assessment of the affected area by using a thermography camera that is sensitive to the infrared spectrum.

An intense and diffuse infrared emission is highly suggestive for inflammation. After the clinical resolution of the affected area the symmetry of the thermal pattern should be restored. If the asymmetry persists, a neuropathic complication of the virus reactivation could be involved.

RESULTS

The first thermal image revealed that all the patient presented thermal asymmetry, but one month later only the two patients over 70 years maintained an asymmetric thermal pattern. These two patients also maintained a mild postherpetic neuralgia.

A high VAS pain score correlated with high DLQI(Dermatology Life Quality Index) scores.

CONCLUSION

The integration of infrared thermography with the clinical findings is very useful in order to create a complete picture of the zoster lesions.

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Ultrasound and Thermal Findings before and after the Treatment with Dry-Needling of Lumbar Trigger Points

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BACKGROUND

Trigger points or muscle knots are hyperirritable spots in skeletal muscle associated with palpable nodules in a taut band of a muscle fibre. Dry needling is a treatment method that involves a thin needle being pushed through the skin to stimulate a trigger point, with the purpose of inactivating the trigger point and relieving pain.

OBJECTIVES

To assess the efficacy of dry-needling as a treatment for myofascial trigger points by using ultrasound imaging to measure them before and after the treatment. We used an infrared thermal camera in order to assess if the trigger point evolution determines a thermal pattern.

MATERIAL AND METHOD

We present a 7 cases pilot study. All patients suffered from low back pain. We clinically identified the lumbar trigger points for each patient and selected the biggest one. Ultrasound examination allowed us to measure them and to create a thermal image of the lumbar region, which revealed thermal asymmetry- the skin area corresponding to the trigger points is represented by a hotter area surrounded by a cooler area. After the initial evaluation, we used dry-needling as a treatment. We re-examined the patients, performed the ultrasound measurements and acquired the thermal images one, and respectively five days after the procedure. Self-reported pain intensity, assessed using visual-analogue scale ranging from 0 to 10, was also recorded in all the patients.

RESULTS

Clinical and ultrasound examination revealed a decrease in trigger points size varying from 47% to 100% in all the patients, only one day after the dry-needling procedure was performed. After five days, the point was undetectable in all patients, using the same methods, with restoration of the thermal symmetry. Self-reported pain intensity also decreased from an initial value varying from 5 to 9, to a value of 3 to 1 one day after dry-needling and to 1 or 0 after five days. 3 patients who presented awakenings during the night caused by the pain in the trigger point area, no longer exhibited awakenings one day after the dry needling procedure.

CONCLUSION

Dry-needling is a simple and effective treatment for controlling the pain associated with myofascial trigger points. Thermal imaging is a good method to assess the effectiveness of dry-needling.

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Bowel Obstruction by Abscessed Benign Sigmoid Tumour, Rare Complication of Crohn's Disease – Case Report

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OBJECTIVES

Crohn's disease is a chronic granulomatous inflammatory disorder of uncertain etiology that can be located on any segment of the digestive tract. The histopathological result always sets the nature of the tumoral formation.

MATERIALES AND METHODS

We present the case of 52 years old male patient, admitted in the ER with major abdominal pain for 7 days, pale skin and cold sweats. The patient presents to the Emergency Department with an abdominal CT scan performed in another service 24 hours before, that reveals distended small bowel loops and sigmoid colon agglutinated in the pelvis and small amount of fluid in the peritoneal cavity. The clinical examination performed on admission shows a distended abdomen with signs of peritoneal irritation. Biological results reveal leukocytosis. The emergency performed ultrasonography reveals to the left of the urinary bladder a tumoral formation of 8.5/7.1 cm with peritumoral fluid. Emergency exploratory laparoscopy is performed. Intraperitoneal, small quantity of cloudy peritoneal fluid is found and an abscess in the Douglas pouch, as well as a bulky tumor that occupies the entire pelvis and invades the urinary bladder. Conversion to open surgery is performed, proceeding to difficult release of the sigmoid tumor from the urinary bladder wall, segmental colectomy with the excision of the tumor and left colostomy. The macroscopic analysis of the tumor at the end of the surgical procedure reveals the integrity of the sigmoid mucosa and the invasion of the tumor in the mesosigmoid.

RESULTS

The patient's postoperative evolution was favorable, with the resumption of the bowel transit on the colostomy 24 hours postoperatively. The pathological result revealed inflammatory bowel disease with histological characters of Crohn's disease. 8 days after the surgery the patient was discharged with the recommendation of gastroenterological evaluation.

CONCLUSIONS

Initially asymptomatic, Crohn's disease slowly evolved with progressive and circumferential thickening of the colonic wall to the complete digestive lumen stenosis with consecutive formation of a pelvic abscess. The pathology results in the presence of epitelial gigantocellular granuloma, which established the certainty diagnosis.

Vitamin D Serum Levels During Acute Episodes of Recurrent Wheezing or Asthma in Children

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OBJECTIVE

Besides the classical role in calcium homeostasis, an impressive amount of recent scientific research brings light on pleiotropic functions of vitamin D in the human organism. Data support a role of the vitamin in the development of a competent immune response. In the present work we describe our results in the study of vitamin D levels in children with recurrent wheezing or asthma.

METHOD AND MATERIALS

We studied the serum concentration of 25-OH vitamin D in 34 children aged 2 to 17 years that were admitted at "Dr. V. Gomoiu" Children's Hospital Bucharest for acute episodes of recurrent wheezing or asthma in 2014. The clinical diagnosis was performed in accordance with the Global Initiative for Asthma (GINA) 2014 guidelines. 25-OH vitamin D serum concentrations were measured using an ELISA test (Euroimmun, Germany). Serum concentrations under 30 ng/ml were considered significant for vitamin D deficiency.

RESULTS

The study sample consisted of 33 children: 25 boys (75.76%) and 8 girls (24.24%). The age range was 2.17 to 15.92 years for boys (mean 9.26, SD 4.57) and 2.42 to 16.33 years for girls (mean 8.63, SD 5.12).

The mean 25-OH vitamin D serum concentrations were 25.93 (SD 8.16) for boys and 24.73 (SD 11.99) for girls (not significantly different, Student's t-test $p=0.75$).

17 boys (68%) and 7 girls (87.5%) presented 25-OH vitamin D serum concentrations below 30 ng/ml (suboptimal serum vitamin D level).

The 25-OH vitamin D serum concentrations did not correlate with age in the examined subject groups (Spearman's Rank Correlation coefficient rho= -0.138 for boys and -0.119 for girls).

CONCLUSIONS

25-OH vitamin D serum levels are decreased in both boys and girls during acute episodes of recurrent wheezing or asthma. Age is not a correlation factor for the serum vitamin D concentration.

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Controlateral Hip Fracture Synthesis in Osteoporotic Patients – Prophylactic Treatment

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INTRODUCTION

The study aim was to evaluate the advantages of mini-invasive prophylactic synthesis of contra lateral hip fractures in osteoporotic patients.

MATERIAL AND METHOD

4 patients have been operated between 2009-2010 with hip fractures in osteoporotic patients. Neck fractures Garden IV in 2 patients and pertrochanteric fractures Kyle III and IV in two others patients. The fracture site was operated in dorsal decubitus under spinal anesthesia, we took advantage of this operation and anesthesia to performe a minimal invasive percutaneous synthesis for the nonfracture controlateral side. We used a simple implant, a quickly method during the same surgery time and anesthesia. The K wires with injected cement were percutaneously inserted. Through a 5 mm skin incision, a channel is created in the proximal femur bone and the implant, made of a fabric pouch hosting Titanium rods, is built percutaneously within the femur. A small amount of bone cement is then added, and interdigitates to the osteoporotic bone to further fixate the implant.

RESULTS

Rehabilitation was obtained and full weight bearing was allowed immediately. The potential benefits expected with the use of this minimally invasive method are: Quick procedure – 15 min, No soft tissue or bone damage, No bleeding, short rehabilitation period, reduced morbidity and mortality, Low cost, same drape, single anesthesia. No hip fracture occurs since now at theses 4 patients.

CONCLUSIONS

The method is simple, reproducible and economically. The osteoporotic patient will be operated during the same anesthesia after the operation of fractured hip. This is a simple method the preventive treatment of the contra lateral side at the same time with surgery treatment of fracture of all patients. Maybe in to the future it will be usefull the prophylactic injection of the osteoporotic hip only by biological cement.

Keywords: prophylactic osteosinthesis, MIS, hip fracture, osteoporosis

Tranexamic Acid for All Total Knee Arthroplasty

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INTRODUCTION

Tranexamic acid (TXA) administered during knee arthroplasty can prevent blood loss and blood transfusions. Tranexamic acid is an antifibrinolytic, efficient in hypoxic condition that competitively inhibits the activation of plasminogen to plasmin by binding to specific sites of both plasminogen and plasmin. In this context, total knee arthroplasty performed on tourniquet has evident efficacity when compared to total hip arthroplasty.

OBJECTIVES

The purpose of the present study is to evaluate the benefit of TXA administration on blood transfusion rates in patients undergoing joint arthroplasty, and to perform cost-benefit analysis.

MATERIAL AND METHODS

The study includes a total of 360 cases split into two groups.The first group consisted of 180 patients admitted for arthroplasty intervention between 1st June 2009 and May 2011 who did not receive TXA, and the other group consisted of other 180 patients operated between 1st June 2011 and June 2013, receiving TXA during the intervention. From the latter group, only 150 patients received intravenous 1 g of TXA at anesthetic induction and another intravenous 1 g of TXA during the suture time. Those cases did not have contraindications to receive TXA. The other 30 cardiac cases received TXA only locally, prior to suture, 3 g diluted in 60 ml serum. Only in these 30 specific cases the Redon was closed for 6 hours. Blood transfusion reduction was the main factor analyzed. Risk factors for transfusion were evaluated in logistic regression models. Costs of antilogous blood donation, TXA administration, auto-transfusion and homologous blood transfusion were used to perform a cost-benefit evaluation.

RESULTS

In the multivariate adjusted analysis, high preoperative hemoglobin level and TXA administration were significantly associated with a reduced risk of transfusion. 75% percent of patients not receiving TXA required at least one transfusion versus 40.8% of patients receiving TXA, with a reduction of 45.6%. The mean number of blood units transfused was reduced by 26%. No difference was observed between the two groups of TXA cases. Among patients receiving TXA, the reduction of hemoglobin level was lower both on day 1 and 2 after the intervention. The mean saving related to TXA administration was of €138 per patient.

CONCLUSIONS

The administration of TXA during total knee arthroplasty intervention reduces the need of transfusion for operated patients and can be considered a cost-effective practice for the National Health System.

Keywords: tranexamic acid TXA, total knee arthroplasty, blood loss, blood transfusion

Distribution of Candida Species Isolated from Blood Cultures in a Pediatric Hospital from Bucharest

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OBJECTIVES

Bloodstream infections due to Candida species are a major cause of morbidity and mortality in hospitalized infants and children. It is important for clinicians to know the distribution of different Candida species in high risk groups since appropriate and timely management may significantly alter outcomes. In our country, little is known about the current epidemiology of candidemia in pediatric population. Consequently, this study aimed to understand the prevalence of various Candida species causing invasive infections in autochthonous children.

MATERIALS AND METHODS

Between May 2012 and May 2014, a total of 2424 pediatric blood specimens were referred to our laboratory for microbiological investigation. Of them, 62 specimens were collected from children with potential risk factors for the development of disseminated candidiasis. Blood cultures were performed using BD BACTEC culture vials (i.e. BD BACTEC Peds Plus and BD BACTEC Mycosis), inoculated and incubated into according to manufacturer's instructions. A matrix-assisted laser desorption ionization–time of flight mass spectrometry (MALDI-TOF MS)-based system (Maldi Biotyper - Bruker) was used for the identification of fungal species.

RESULTS

Candidemia was confirmed by positive-blood cultures for 21 children who were hospitalized in the intensive care unit (ICU, 12 cases), Pediatrics (4 cases), Oncology (3 cases), and Pediatric Surgery wards (2 cases). More than half (11 patients) of the children with candidemia were males with an average age of 3 years (range 0-16 years). The positive-blood cultures yielded the following Candida species: *Candida albicans* (10 isolates), *Candida parapsilosis* (5 isolates), *Candida lusitaniae* (3 isolates), *Candida tropicalis* (1 isolate), *Candida pulcherrima* (1 isolate), and *Candida pelliculosa* (1 isolate). Four deaths were recorded among the candidemic children diagnosed with infections with non-albicans species *C. parapsilosis, C pelliculosa,* and *C. pulcherrima*.

CONCLUSIONS

C. albicans was the most common species isolated from blood cultures. Yet, other non-albicans species were responsible for episodes of candidemia in local children. Several of the latter species seemed to be associated with a severe outcome. More than half of the Candida isolates reported in this study originated from candidemia episodes in ICU patients. Efforts should be made to overcome the challenges of the low positivity of blood cultures in order to improve the information regarding a shift in the epidemiology of invasive candidiasis caused by different Candida species in pediatric population from our area.

Keywords: Candidemia, children, non-albicans species

Incidence and Antibiotic Susceptibility of Mycoplasma Hominis and Ureaplasma Urealyticum Isolated from Urogenital Infections

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OBJECTIVES

Mycoplasma hominis and Ureaplasma urealyticum play an important role in the etiology of vaginitis, cervicitis and pelvic inflammatory disease, nongonococcal urethritis, prostatitis, testicular inflammation, urinary stones and infertility. The aim of this study was to demonstrate the rate of incidence and antibiotic susceptibility of Mycoplasma hominis and Ureaplasma urealyticum isolated from urogenital infections in our area.

MATERIALS AND METHODS

By using commercial mycoplasma kits, we investigated their incidence and antimicrobial resistance in patients with genital infection. The samples for testing genital mycoplasmas were collected by picking up vaginal or urethral secretion using sterile Dacron swabs. For men, midstream of urine samples was accepted for diagnostics, according to kit instructions. The culture of genital mycoplasmas was performed by using a commercial mycoplasma kit. The Quality Control was performed with Mycoplasma hominis ATCC 15488.

RESULTS

We examined 2,250 specimens, women (n = 2,084) and men (n = 166), between August - December 2014. Prevalence of positive samples was 16.53% for U. urealyticum (UU) and 1.6% for M. hominis (MH) The median age of the positive patients was 31 years (range: 17-54 years). Among positive samples for UU, 94.6% were sensitive to levofloxacin, 25.6% to ofloxacin and 4,29% to ciprofloxacin. In MH isolates, 100% were sensitive to both levofloxacin and ofloxacin and only 45% to ciprofloxacin. Sensitivity for doxycycline was 86.7% for UU and 95.45% for MH. Regarding azythromycin, 93.15% UU and 10% MH were sensitive. All 13 male urine samples were negative for UU and MH infections.

CONCLUSIONS

In our study, levofloxacin and doxycycline were the most effective drugs for mycoplasma infections.

Because of geographical differences among antibiotic resistance, local in-vitro susceptibility testing is recommended to avoid failure of therapy. Surveillance for antibiotic susceptibility is strongly recommended.

Acknowledgement: This work received financial support through the project entitled „CERO – Career profile: Romanian Researcher", grant number POSDRU/159/1.5/S/135760, cofinanced by the European Social Fund for Sectorial Operational Programme Human Resources Development 2007-2013.

A Rare Countenance of Multiple Periosteal Aneurysmal Femur Bone Cyst – Case Report

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We present a rare case of multiple aneurysmal femural bone cyst characterized by the presence of spongy or multi-cameral cystic tissue blood filled. The process is a benign one, but is locally destructive and presentation is difficult to distinguish from other malign lesions also having a high propensity for recurrence. Aneurysmal bone cyst accounts for less than 1% among primary bone lesions, and its presence among multiple tumors at the same bone it is even seldom.

We report the case of a twenty two year old male presenting to orthopaedic with complaints of swelling and pain at left femur in the last year, with increased pain in the past 3 months. There was a history of minor trauma of the right femur a year ago, which healed without any complications. No other relevant past history was mentioned.

Radiographs of the femur were taken. Antero-posterior view demonstrated three lytic expansive lesions, one on the lateral periosteum and another two at the medial periosteum of the proximal part of the femur. Based on these findings, additional diagnostic imaging was ordered. Findings on advanced imaging studies included the following: on computed tomography, lesions showed medullary destruction with periosteal reaction (specific for malign tumors). Magnetic resonance imaging studies for the thigh enhancement with contrast revealed all the three periosteal tumors, and that appearance suggested thesaurismosis or another blood disease.

The lesions were excised with curettage and the residual cavities were filled with autogenous bone graft from the iliac crest.

Histopathology revealed multiple aneurysmal bone cysts. In the follow-up period of the six months, the patient demonstrated normal joint activities with no pain. Normal configuration of the femur and bone union were shown on plain radiographs.

In conclusion, aneurysmal bone cysts are enigmatic lesions of unknown cause and have a high propensity for recurrence. Here, the type of the technique used should be mentioned as effective in controlling disease, correcting deformity and improving function.

Anti-Biofilm Activity of Lactofferin Against Some Methicillin Resistant *Staphylococcus Aureus* Strain

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Bacterial biofilms became intensely studied because their involvement in chronic infections and device-related infections. Moreover, bacteria, in this way of living, becomes recalcitrant to the currently available therapies. New compounds that act specifically on sessile bacteria are absolutely necessary to find.

Lactofferin (LF) is a natural molecule constitutively secreted in animal and human body, and it is among the most abundant proteins present in surface secretions. *In vitro* analyses have demonstrated that LF is structurally and functionally suitable for the heterogeneity of bacterial biofilms. Therefore, the objective proposed was to study the anti- biofilm activity of LF on some meticillin-resistant Staphylococcus aureus (MRSA) strains isolated from nasal exudates, in order to evaluate the use of this molecule for treatment of respiratory tract infectious produced by MRSA strains.

MATERIALS AND METHODS

The capacity to develop 24h, 48h, and 72h biofilms on inert substrata was quantified using a microtiter method in two experimental models: in the first model LF was added in the same time with bacterial strains, in the second one LF was added after the biofilm was already developed for 24h. Also, the biofilm developed on the sterile glass was examined at epifluorescence microscop after the glass was washed, fixed and fluorescence staining.

RESULT AND DISCUSSION

In the first model, LF proved to be capable of inhibiting biofilm development at each time of experiment, with a maximum capacity against 24h biofilm. On the preformed biofilm, LF is efficient only against 48h biofilm, at 72h cells from biofilm becoming unresponsive to this action. A higher dose of LF was also a failure, proving the necessity to administrate doses with increased frequency, not of higher dosage.

CONCLUSION

This study offers a real alternative for infection with MRSA from biofilm, but further studies will be necessary in this regard.

Keywords: lactoferrin, Staphylococcus aureus, antibiofim activity, antibiotic resistance

Microbial Colonization of Dysfunctioning Voice Prostheses in Romanian Laryngectomized Patients

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The prosthetics devices in contact with the normal microbiota, such as the silicone voice prostheses, are more predisposed to microbial colonization and biofilm formation. As a results of the biofilm developed, device deterioration leads to subsequent leakage through the valve, reduced fixation, increased airflow resistance, impeding speech, respiration and swallowing. All of these lead eventually to the need for frequent and inconvenient replacements of the prosthesis. The objective of this study was the microscopic characterisation of the biofilm developed on the silicone voice prostheses placed in patients with total laryngectomy after six months and the investigation of the resistance and virulence features in the recovered strains.

MATERIALS AND METHODS

The biofilm developed on the surface of silicone voice prostheses from patients with total laryngectomy was examined by scanning electron microscopy and the isolated microbial strains were phenotypically assayed for virulence and antibiotic resistance markers. The expression of virulence soluble markers was investigated by spotting fresh cultures on culture media containing specific substrata and incubated at 37°C for 72 hrs. The antibiotic susceptibility testing was performed by standard disk diffusion method.

RESULTS

Our results revealed that the surface of the voice prosthesis is colonized by a polyspecific biofilm, the most frequently isolated species belonging to Gram-positive cocci and Gram-positive bacilli, but also some fungal species were detected. The analyzed strains expressed a large panel of soluble virulence factors and exhibited multidrug-resistance phenotypes.

CONCLUSION

Taking into account that microbial cells grown in biofilms are difficult to eradicate and that they can spread throughout the body and initiate other infections, endangering the patient's life, finding efficient solutions to increase these kind of devices resistance to microbial colonization are strongly needed.

Keywords: voice prostheses, biofim, soluble virulence factors, antibiotic resistance

Correlation between Duration of Viral Infection and Extrahepatic Manifestations in Patients with Chronic Hepatitis C Virus Infection

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BACKGROUND

HCV chronic infection is often associated with systemic, extrahepatic features. We evaluated the association between the duration of the hepatic viral infection and the extrahepatic manifestations (EHM) or related frank autoimmune diseases.

METHODS

A descriptive, cross-sectional analysis of patients with HCV infection was performed in one Rheumatology and one Infectious Diseases Centers. We analyzed the patients' extrahepatic phenomena as well as the associated autoimmune disease and we divided them in three groups, according to the duration of the HCV-infection. We used Windows Excel/SPSS20.0

RESULTS

72 patients were included. Mean age was 56.7 years, with female predominance (79.2%), median HCV infection duration of 10 years. 41 (56%) patients had at least 1 EHM or autoimmune disease. For comparative analysis, 3 groups (matching for sex/age) were created: 31(41%) patients in the 1-5yrs HCV liver infection duration group, 26(34%) patients in the 6-10 years-duration group, and 15 (25%) patients in the 11-20 years-duration group. EHM were found in 18 (58%) patients, 13 (50%) patients and 11 (74.3%) patients in the 3 groups, respectively and more than 1 EHM were found in 9 (50%) patients, 3 (23%) and 5 (45%) patients in corresponding groups. As for the autoimmune diseases, they were in the same proportion 9(30%), 8(30%) in the 1-5 and 6-10 years-viral infection-group and in only 2(13.3%) patients in the 11-20 years-duration group.

CONCLUSION

In patients with HCV chronic infection, the extrahepatic manifestations are associated with older age and longer disease duration; while associated frank autoimmune diseases are associated with younger age and shorter disease duration.

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Takayasu Arteritis Features in a Romanian Single Center Cohort

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BACKGROUND

Takayasu arteritis is an inflammatory condition of uncertain etiology, characterized by granulomatous vasculitis of large vessels, affecting predominantly younger women, aged 10 to 40 years old. The incidence varies with race and geographic region, with a higher occurrence rate in Asians, thus highlighting the immunogenetic influence. This chronic vasculitis primarily targets the aorta and its main branches leading to systemic and vascular manifestations that might demand angioplasty revascularization together with corticotherapy and immunosuppressant drugs.

OBJECTIVES

To identify clinical and treatment features of Takayasu patients in a Romanian single center Rheumatology Department.

METHODS

We retrospectively identified six Takayasu patients assessed in our department over the last year, and documented their disease debut, age of onset and prescribed treatment.

RESULTS

All patients in the study group were women with the age at diagnosis ranging from 13 to 60 years old. All patients had symptomatic onset of the disease, three of them presenting with systemic symptoms such as fatigue, weight loss and myalgia, two patients displayed malignant hypertension and encephalopathy, dizziness, headaches, and one patient complained of superior right limb paresthesia and claudication. Two women had blood pressure measurement asymmetry at onset or absent limb pulses, which promptly oriented the diagnosis. Only two patients out of six presented with initial inflammatory syndrome. On angiogram, five patients had left carotid artery and left subclavian artery stenosis, followed by the correspondent right branches in two and three patients, respectively. Vertebral arteries were partially occluded in three patients, renal artery flow was affected in four patients, while the brachiocephalic trunk was altered in two patients. Four patients in this study required stent placement with further repeated dilations, or aortorenal and aortocarotid bypass. Regarding specific medical treatment, immunosuppressive therapy with cyclophosphamide or azathioprine was given in three cases due to vascular impairment and persistent high levels of inflammatory markers, two patients are in remission and one is on glucocorticoids. Two patients suffer from other associated immune-mediated diseases, namely Hashimoto's thyroiditis and psoriasis.

CONCLUSIONS

The long term outcome of Takayasu patients cannot entirely be predicted, therefore close monitoring is mandatory. Hypertension is a significantly prognostic marker of morbidity and mortality, hence adequate hypertension treatment is crucial.

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The Differential Diagnosis between Wounds and Livor Mortis Using Diaphanoscopy

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Diaphanoscopy is the method of examining tissue through transillumination. In forensic medicine, the method has been used to describe wounds. When the need to differentiate wounds from livor mortis, in the areas affected by gravity, occurs, this is usually done through an incision of the interest area. The objective of this study was to examine the possibility of using diaphanoscopy for the differential diagnosis between wounds and livor mortis.

METHODS AND MATERIALS

The transillumination of skin tissue was done using a LED light source, Hama FLASHL. CLASSIC C-98, placed at a 90 degree angle on the interest area. The images were captured with a digital camera, Nikon COOLPIX L29, and subsequently edited using Adobe Photoshop CS5, to modify the exposure, the contrast, the brightness, as well as to apply a red curve. A number of 12 wounds and 11 areas presenting livor mortis were examined on 23 subjects.

RESULTS

The transillumination of apparently normal skin tissue produces a symmetrical light circle, with multiple areas of different intensities. In the vicinity of a bruise the contour of the circle becomes irregular and the symmetry is disturbed. In the case of presumed livor mortis, the circle diminishes but the contour and symmetry remain unaffected.

CONCLUSIONS

The differential diagnosis between wounds and livor mortis may be obtained through manual diaphanoscopy, followed by the digital processing of the acquired images. Transillumination is an inexpensive, efficient and fast method of obtaining a differential diagnosis between wounds and livor mortis, eliminating the need for supplementary incisions. Further studies are necessary to summarize the specific changes that occur in the transillumination of wounds versus livor mortis.

Keywords: diaphanoscopy, violent death, livor mortis

Complications of Gout Treatment in a Patient with Urinary Infection

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INTRODUCTION

Stevens Johnson Syndrome (SJS) is a rare, severe evolving syndrome, that typically involves the skin and mucous membranes.

CASE REPORT

A 60-year-old female patient presented with altered general status, with a maculo-papular erythematous rash on the face and trunk. Three weeks before, the patient had been diagnosed with gout arthritis, chronic kidney disease and urinary infection, for which she received treatment with colchicine, allopurinol, methylprednisolone, aceclofenac, omeprazole and norfloxacin. At presentation, the patient was confused, with tophi at interphalangeal joints bilaterally. Laboratory tests revealed severe metabolic acidosis, severe hyperkalemia, significant nitrogen retention. Hydroelectrolitic and acid-base correction was started, hemodialysis and corticotherapy, due to suspicion of an allergic cause. The general evolution was favorable, but skin lesions progressed, the macules becoming intensely erythematous and confluent, with areas of epidermolysis bullosa on the posterior thorax and abdomen, with extension of the thoracic rash to the abdomen and limbs. The final diagnosis was Stevens Johnson syndrome (SJS) and post-drug acute interstitial nephritis, the etiologic agent being allopurinol. After a week of hospitalization, skin lesions resolved, the patient was hemodynamically and respiratory stable and she was discharged with normal diuresis, normal creatinine (0.91 mg/dL), normal seric ionogram.

CONCLUSION

A variety of drugs are incriminated in inducing SJS, allopurinol being the most common cause of the syndrome in Europe. Given the limited therapeutic resources available, mortality remains high in SJS, which emphasizes the importance of judicious use of drugs and rapid orientation of the clinician to the diagnosis since the onset of symptoms.

Unilateral Painful Edema of the Lower Leg: Venous Thrombosis?

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INTRODUCTION

Venous thrombosis is one of the most common postoperative complications.

CASE PRESENTATION

A 59 year-old male patient, obese, presented for left lower leg edema, pain and disability. Six weeks before, the patient had undergone gastric sleeve surgery for obesity treatment, with prophylactic postinterventional anticoagulation with enoxaparin. After surgery, the patient followed balneophysiotherapy for osteoarthritis of the knee. After the appearance of the painful edema of the leg, the patient suspected a left calf vein thrombosis and he self-administered anticoagulant therapy with injectable enoxaparin concomitantly with oral anticoagulants. Given the highly suggestive clinical picture in postsurgical context, the patient was hospitalized during the evening, with the diagnosis of deep vein thrombosis of the left leg and anticoagulant treatment was continued. The next day, a venous Doppler ultrasound was performed, which showed permeability of the lower limb veins and revealed a hypoechoic mass in the left calf, highly suggestive of hematoma. The diagnosis was confirmed by MRI imaging, that showed a big hematoma in the upper 2/3 of the left calf. Surgery was performed and found a hematoma (500 ml) in the anterior-medial compartment, infiltrating also the posterior part of the leg. After drainage and suction, delayed postoperative suture of the wound was performed.

CONCLUSIONS

A wide range of pathologies such as haematomas, ruptured popliteal cyst, infection, lymphedema, sarcomas may present with the same symptoms as deep vein thrombosis. Differential diagnosis is challenging, given that these conditions require different treatments and anticoagulant treatment is sometimes contraindicated.

CT and MRI Findings of Pancreatic Benign Cystic Lesions

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OBJECTIVES

Despite improvements of CT and MRI investigations, the diagnosis of pancreatic cystic lesions is still difficult. We aimed to present the illustrated CT and MRI current findings used to characterize pancreatic benign cystic lesions.

MATERIALS AND METHOD

Retrospective study between January 2010 and March 2015, regrouping all patients with pancreatic cystic lesions prior detected by ultrasound and explored in our department by CT or/and by MRI in the purpose to characterize the pancreatic cystic mass. In all patients CT protocol was a three phase CT after contrast iv injection (arterial, portal and late phase) and the MR evaluation grouped T2 and T1 w sequences, cholangiopancreatography MR acquisitions ssFSE long and short TE and 3D FSPGR without and with Gd iv injection, using a multiphase acquisition.

RESULTS

In most of the cases, CT evaluation allowed detecting and characterizing pancreatic cystic masses, but sometimes it was unable to characterize small cystic component and its communication with the Wirsung duct. MRI was more useful than CT in the diagnosis of pancreatic cystic lesion, being able to establish the cystic nature of a pancreatic lesion and to describe its morphology.

CONCLUSIONS

Most pancreatic cystic lesions are first identified by ultrasonography. Even though CT is usually the most common complementary imaging investigation, MRI is more accurate to depict and characterize these lesions.

Importance of NT ProBNP in Preventing Heart Failure

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PURPOSE

It is well known that NTproBNP is useful in diagnosis of heart failure. This is a pilot study that aims to study the usefulness of NTproBNP in patients without heart failure (but with conditions at risk of developing heart failure) for guiding treatment for preventing heart failure.

MATERIALS AND METHODS

We included 146 patients who were presented at hospital during one year, with: hypertension, diabetes, ischemic heart disease, valvular disease, arrhythmias. We excluded patients with heart failure. We randomized patients into 2 equal groups: a control group and an intervention group. NTproBNP value was determined for all patients. In the intervention group patients were treated according to the NTproBNP. Patients with NTproBNP <125 pg/dl (31 patients) received standard treatment for their symptoms. Patients with NTproBNP>125 pg/dl (42 patients) were the ones on which we intervened to prevent heart failure. They were investigated by cardiac ultrasound and other tests and they received specific treatment. Patients in the control group received standard treatment regardless of the NTproBNP value.

RESULTS

After one year, the end points were: diagnosis of heart failure left ventricular dysfunction, death from any cause, the rate of hospitalizations for cardiovascular pathology. After one year in the control group were eleven (15%) patients who developed heart failure compared to six (8.2%) patients in the intervention group. Eighteen (24%) patients were diagnosed with left ventricular systolic dysfunction, compared to nine (12%) in the intervention group. Also, and rate of admissions for cardiovascular pathology was higher in the control group thirteen (17.8%) versus six (8.2%) in the intervention group.

CONCLUSIONS

Patients in the intervention group, in which the value of NTproBNP was used in choosing therapeutic management, had lower rate of incidence of heart failure or cardiovascular events than patients in the control group. The NTproBNP value in patients without heart failure can detect patients at risk of developing heart failure. And more, medical intervention guided by NTproBNP can prevent or delay heart failure

Hand Grip Strenght in Evaluating Nutritional Status of Diabetic Patients Undergoing Hemodialysis

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BACKGROUND AND OBJECTIVES

In patients with chronic kidney disease undergoing hemodialysis (HD), the protein-energy wasting (PEW) is an important risk factor for cardiovascular morbidity and mortality.

The aim of this study is to assess the influence of diabetes mellitus on the incidence of PEW evaluated through handgrip strength (HGS) in end stage renal disease patients on (hemodialysis) HD.

MATERIAL AND METHODS

A number of 138 patients (42% females; 78 with DM-56,5%) on chronic hemodialysis from two dialysis centers, mean age 56±13 yrs have been enrolled in a cross-sectional study. Anthropometric parameters (height, weight, tricipital fold, arm circumference), biological markers (serum albumin, feritin, serum creatinine), lean tissue mass and lean tissue index (measured with bioimpedance spectroscopy device) were determined and hand grip strength was performed using SAEHAN, type SH5001, Hydraulic Hand Dynamometer.

RESULTS

A statistically significant ($p<0.001$) difference between the prevalence of PEW syndrome in diabetics vs. non-diabetics (44,9% vs. 20%) was found. Gender and age have correlated with handgrip strength in both groups. In the DM group, the HGS was correlated with diabetes duration ($r=-0.25$; $p=0,02$) and creatinine ($r=0.24$; $p=0,03$), while in nonDM group HGS was correlated with dialysis duration ($r=-0.28$; $p=0,02$) and creatinine ($r=0.38$; $p=0,003$). We have also observed in the nonDM group correlations between HGS and the mid-arm circumference ($r=0.38$;$p=0,003$) and the tricipital skin fold ($r=0.46$;$p=0,000$). We observed in both groups correlations between HGS and lean tissue mass ($r=0,84$; $p=0,000$ vs. $r=0,55$; $p=0,000$) and between HGS and lean tissue index ($r=0,74$; $p=0,000$ vs. $r=0,44$; $p=0,001$). Significant differences between the two groups were found for inflammatory bio-markers such as serum albumin (3.91 g/dl in DM group vs. 4.07 g/dl in nonDM group).

CONCLUSIONS

In patients with end stage renal disease and DM undergoing HD the PEW syndrome evaluated through HGS has the following characteristics compared to non DM patients: higher prevalence, inverse relationship with DM duration and direct relationship with inflammatory bio-markers (serum albumin). In DM group characteristic PEW syndrome is associated with an increase in adipos tissue mass which makes HGS correlate with bioimpedance but not with anthropometric measurements.

Antifungal Activity of Novel Pharmacologically Active Compounds Against Penicillium Expansum, Aspergillus Niger, Rhizopus Stolonifer

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In the recent years different research groups have been involved in the design and synthesis of novel thiourea derivatives with antimicrobial, antituberculosis, anti- parasitic,antiviral, anticancer, anticonvulsant, antidiabetic and anti-inflammatory activities.

OBJECTIVE

In the attempt to develop novel alternatives for the treatment of antifungal infections, ten new thiourea derivatives were synthesized and tested for their efficiency against the growth of different filamentous fungi strains.

MATERIAL AND METHODS

Chemicals and solvents were purchased from Merck Schuchardt (Hohenbrunn, Germany) and Sigma- Aldrich (Steinheim, Germany). The purity of the compounds and the reaction progress was checked by thin layer chromatography on Merck Silica gel 60 F254 plates (Merck, Germany). The melting points were determined with Electrothermal 9100 capillary apparatus (Bibby Scientific Ltd, Stone, UK).The antifungal activity of thiourea derivatives was evaluated against Penicillium expansum, Aspergillus niger, Rhizopus stoloniferusing disk diffusion methods a qualitative screening method,by testing 10 mg/ml concentration solutions for each compound, and fluconazole (2 mg/ml), as positive control. The quantitative assay of the minimal inhibitory concentration (MIC) was determined by means of the broth microdilution method after six days of incubation of the fungal strains in the presence of different binary solutions of the tested compounds in RPMI culture medium.

RESULTS

The microbiological testing revealed that six of the ten thiourea derivatives exhibited significant antifungal activity, as revealed by the moderate to low MIC values. The stereomicroscopic analysis of the fungal growth showed deformed mycelial bodies and delayed maturation of secondary mycelium at different concentrations of the tested compounds (from 500 μg/ml to15.62 μg/ml).

CONCLUSION

Our study is suggesting that the antifungal activity spectrum of the tested thiourea derivativesis dependent on their molecular structure. The low MIC value obtained for some of the tested compounds led to the conclusion that they can be used for the design of new antiseptics or disinfectants for different surfaces exposed to fungal colonization.

Diphtheria Immunity Seroprevalence Study in Children and Adolescents in Romania

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BACKGROUND

Diphtheria is an acute, infectious, and potentially fatal disease in susceptible persons. The species that can cause diphtheria are Corynebacterium diphtheriae and rarely, C. ulcerans or C. pseudotuberculosis. Unvaccinated people or those with a serum level of anti-diphtheria toxin less than 0.01 IU / ml are susceptible.

Diphtheria is a vaccine-preventable disease. The prevention of outbreaks is ensured since vaccination coverage of at least 95% to 90% of children and adults. Data available in Romania shows that vaccination coverage in children of 18 months is less than 95% in both rural and urban areas.

The objective of this study is to know the degree of protection against diphtheria in a segment of the population by determining the titer of anti-diphtheria toxin.

MATERIALS AND METHODS

We have studied 180 sera from children and adolescents aged 5 to 20 years. Determination of antibody titer IgG anti-diphtheria toxin was performed by ELISA using a commercial kit.

Interpretation of diphtheria immunity was made according to the literature and instructions WHO Manual and was considered a negative result (subject unprotected) if diphtheria antitoxin antibody titer was <0.01 IU / ml (international units / milliliter) and positive (protected subject) if the titer was ≥0.1 IU / ml. An antibody level range from 0.01 to 0.09 IU / ml is classified as a minimum level of immunity or weakly positive. In this case revaccination should be indicated.

RESULTS

72 (40%) of the 180 samples were positive, 21 (11.66%) were weakly positive and the remaining 87 (48.33%) sera were negative. Distribution by age group showed a percentage of positive sera of 37% for subjects aged 5-9 years and 10-14 years and 48.7% respectively in subjects in the age group 15-19. The higher percentage of protected subjects in the 15-19 age group could be justified by boosting with dT (diphtheria-tetanus) administered at age 14.

CONCLUSIONS

Diphtheria is one of the infectious diseases that should be the main focus of local public health authorities both national and international. Although vaccination that prevents diphtheria is offered to all children up to age 14, the immunity may decrease with age and thus groups of people vaccinated but unprotected accumulate. This is a serious epidemiological risk to be investigated and assessed by responsible health authorities. Diphtheria can return as a re-emerging disease because of decreased vaccination coverage in children and adults and because no booster doses are administered as required by the National Immunization Program.

The Accessability of Patients to Cardiology Services

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BACKGROUND

The aim of this study was to evaluate the accessibility of patients with cardiovascular diseases to emergency health services and to describe how the consumption of the economic resources was done.

MATERIAL AND METHODS

We performed a retrospective study on 100 randomly selected patients admitted into the Cardiology Department of our hospital from January 2013 to December 2013. For the selected patients we verified (using health administrative data) all medical services that these patients had received since 2010 to 2014.

RESULTS

1. Although the patients were registered to a GP's office, the severity of their disease had not been reported in any medical act before they were admitted to the emergency department.
2. We have noticed that 10% of the patients taking the same treatment schedule for more than 36 months haven't been reevaluated during this period.
3. 14.65% of patients were readmitted in the cardiology department earlier than 30 days from discharge due to initial disease or other comorbidities.
4. We concluded that the total cost for four days of hospitalization in the Cardiology Department was comparable with their personal contribution to medication for a period of four years.

CONCLUSION

We aimed to emphasize that a better surveillance of patients in the ambulatory units with priority towards prevention is better for saving financial resources.

Acute Myeloid Leukemia after Osteosarcoma in a 19 Year Old Patient: Case Report

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INTRODUCTION

As patients with osteosarcoma become long-term survivors, increasing attention has turned to the burden of late effects. Recent studies showed increased incidence of secondary malignant neoplasms in patients with osteosarcoma compared with the general population, in particular in last decade.

CASE REPORT

We present the case of a 19 year old patient recently admitted for fever (38°C), extreme fatigue, intense pallor, in the Hematology Department of Colentina Clinical Hospital. The patient reported osteogenic osteosarcoma of the right femur diagnosed 2 years ago. Complete remission was achieved following surgery, chemotherapy (COSS EURAMOS protocol) and radiotherapy. The full blood count performed at admission showed severe anemia, thrombocytopenia and leukocytosis, and the blood smear revealed the presence of myeloblasts in proportion of 97%. The bone marrow aspirate showed 95% blasts with the morphological characteristics of myeloid lineage, with the dislocation of normal hematopoiesis. The flow cytometry performed on the bone marrow aspirate stated the diagnosis of Acute Myeloid Leukemia M1 FAB subtype (WHO 2008). The cytogenetics revealed an abnormal karyotype with 91 chromosomes (XXY). The molecular biology did not find mutations in the FLT3ITD, FLT3D835 and NPM1 A genes. The patient was started on the first course of induction therapy with Cytarabine for 5 days and Anthracicline for 2 days (the calculated total dose of anthracicline used for treating the osteosarcoma allowed us to further administer anthracicline). On day 21, the bone marrow aspirate revealed 4% blasts, interpreted as complete remission. Next the patient underwent a first consolidation course of chemotherapy with high dose Cytarabine followed by a severe post chemotherapy aplasia. The bone marrow aspirate performed after this course revealed 3% blasts, showing the patient was in sustained complete remission. In the view of the prior radiotherapy and chemotherapy treatment for the osteosarcoma, we considered this to be a secondary Acute Myeloid Leukemia. Along with the cytogenetic abnormalities found, this is a major negative prognostic factor. In this context, consolidation of the first complete remission by allogenic stem cell transplant was strongly recommended. To be noted that the patient has a sibling who is not HLA compatible, but efforts are being done to find a suitable unrelated donor.

CONCLUSION

The particularities of this case are the association of the two malignancies in a young patient, the presence of the abnormal karyotype (hyperploid), and also the good response of the patient to the induction therapy, with complete remission after the first induction course and sustained response.

Comparative Analysis of the Oral Health Attitude and Behavior among Medical and Dental Students in Bucharest

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BACKGROUND

Professional education gained during the faculty may positively influence the oral health behavior of students, enabling them to change unhealthy behaviors of their future patients.

METHODS

The study was done in 2015 on a group of 170 first year students, half dental and half medical students, with a mean age of 19.35 years (69% girls) using a 17-questions form.

RESULTS

Regarding the self-evaluated oral health status, 41.7% of medical students consider their status as being excellent or very good compared to dental students. 3 more medical students felt dental pain in the last year, compared to dental students (33.1%). 25% of dental students and 50% of medical students go to dental office in late stages, when symptoms are already present, not preventively. Most of both dental (83.5%) and medical (78.8%) students have the correct tooth brushing frequency. Only 15% of medical students have taken systemically fluoride supplements compared to 50% or dental students. Secondary oral hygiene products are used by 80% of medical students, less than the percent of dental students – 90%, most frequently used product being mouthwash. There have been found statistically significant differences between the two groups regarding the percent of students who clean their teeth after daily snacks ($p=0.05$), use of interdental brushes ($p=0.014$) and dental floss ($p=0.008$) in favor of dental students.

CONCLUSION

Medical students are more confident regarding their oral health status, but dental students have a more proper oral health behavior.

Nocturnal Oxyhaemoglobin Level and Pulmonary Function in Patients with Morbid Obesity and Sleep Apnea Syndrome

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BACKGROUND

In morbidly obese patients (BMI>40 Kg/m^2) pulmonary function may be decreased due to a diminution of the diaphragmatic excursions and a low thoracic wall compliance. Obstructive Sleep Apnea (OSA) is present in almost 90% of this patients. Consecutively, the level of nocturnal oxyhaemoglobin saturation (SaO_2) could be affected.

AIM

To assess the correlations between nocturnal oxyhaemoglobin levels and pulmonary function in morbidly obese patients with sleep apnea.

MATERIAL AND METHODS

A cardiorespiratory polygraphy and pulmonary function tests were performed in patients with morbid obesity and high pretest suspicion of OSA. Anthropometric indices (weight, height, body mass index) and smoking history were also analyzed. Correlations between nocturnal oxyhaemoglobin levels, BMI, vital capacity (VC), FEV1 (forced expiratory flow in one second) and apnea hypopnea index (AHI) were assessed.

RESULTS

73 (21 non smoker) consecutive patients (45 males), mean age: 51,04±10,24 years, with median BMI: 44,1 kg/m^2 (40-60) and obstructive sleep apnea (mean AHI: 50,24 ±28,10/hour) were prospectively analyzed. Median average nocturnal SaO_2 was 88,5% (69-95), median FEV1: 2,16L (0,44-4,32), mean VC: 2,69±1,06L, mean Oxygen Desaturation Index (ODI): 51,15±27,01/hour, mean lowest SaO_2: 66,03±10,81%. A statistically significant positive correlation between nocturnal average SaO_2 and FEV1 (r: 0,51; p<0,001) and VC (r: 0,50; p<0,001) was found. 58 out of 73 patients (80%) had abnormal pulmonary function tests, 50 with restrictive and 8 with mixt and obstructive pattern.

CONCLUSION

A low nocturnal SaO_2 level correlates with VC and FEV1 in morbidly obese patients. There is a relation between abnormal pulmonary function tests and morbid obesity. Restrictive pattern is more frequent, but obstructive and mixt pattern may also exist, probably related to the systemic inflammation which may occur due to metabolic syndrome and sleep apnea in this patients.

Keywords: morbid obesity, pulmonary function, nocturnal oxyhaemoglobin level, sleep apnea

Unexpected Evolution of a Case of Idiopathic Pulmonary Fibrosis with Cardiac and Infectious Decompensation

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INTRODUCTION

Idiopathic pulmonary fibrosis (IPF) is a progressive interstitial lung disease of unknown etiology. The median survival is 2 to 3 years. This paper presents the management of a case of IPF diagnosed 4 years ago, with cardiac and infectious decompensation.

CASE REPORT

A 72-year-old patient presented to the emergency room of Azienda Ospedaliera di Perugia with worsening dyspnea and respiratory failure (pCO_2=85,2 mmHg, pO_2=33,5 mmHg). The patient was diagnosed with IPF in 2011 and had another recovery in 2014, when she was sent home with O_2 therapy (1L/min, 24 hours).

The investigations reveled cardiac and infectious decompensation: Biochemical profile-leukocytosis, eosinophilia, augmented VES, PCR; Rx thorax-bilateral pleural effusion; Serologic markers-positive for Mycoplasma pneumoniae; ECG-sinus tachycardia, right bundle branch block; Echocardiogram-biatrial dilatation, moderate tricuspid regurgitation, pulmonary hypertension (PAPs=80 mmHg); Thorax CT scan-bilateral multiple nodular and ribbon shape opacities, pleural thickening.

The patient was admitted to the Internal Medicine department and was consulted by the colleagues from Pneumology, Infectious diseases and Occupational medicine.

The main therapeutic interventions were noninvasive ventilation with BPAP (PEEP=16 cm H_2O, EPAP=6 cm H_2O), antibiotics, aerosol therapy, heparin therapy, antihypertensive drugs, anti-anxiety medication, respiratory rehabilitation.

After 45 days of clinical ups and downs, the patient was discharged with BPAP therapy (1-1,5L/min)-4 hours in the morning, 4 in the afternoon and all the night, O_2 therapy (0,5L/min)-in the rest of the day, aerosol therapy, antihypertensive and anti-anxiety medication. She was discharged with pCO_2=58,6 mmHg, pO_2=94 mmHg.

CONCLUSION

In a case of IPF with cardiac and infectious decompensation, only a multidisciplinary management can lead to a satisfying, unexpected evolution.

The Coronary Sinus – Considerations Regarding Percutaneous Transvenous Mitral Annuloplasty

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BACKGROUND

The study of the coronary sinus (CS) came in focus with the advent of interventional cardiology and minimal invasive techniques concerning mitral regurgitation. These methods were imagined exploiting the relationships of the CS with relevant structures of interest. One of these structures is the mitral annulus (MA).

Percutaneous transvenous mitral annuloplasty (PTMA) uses the CS for deployment of a device that, when tensioned, reduces the adjacent posterior MA to allow proper coaptation of the leaflets. The variability of position of the CS has to be taken into considerations when selecting patients for this procedure.

OBJECTIVE

The assessment of CS anatomy was assessed through conventional and non-conventional dissection. Measurements were made with a high resolution digital caliper.

METHOD AND MATERIALS

The study took place in the Anatomy Department of "Carol Davila" University of Medicine and Pharmacy, Bucharest and assessed the anatomic relationship between the CS, MA and circumflex artery (Cx) in 11 formalin-fixed hearts without obvious disease. Dissection pictures were taken.

RESULTS

The standard position of the CS in the coronary groove was observed in 5 specimens, while in 2 specimens the CS was located inferiorly towards the left ventricle and in 4 specimens was located superiorly towards the left atrium. The Cx was located inferior to the CS in 8 specimens, while in the remaining 3 it was located deep to the CS. The CS diameter and length as well the distance between the CS and MA were measured.

CONCLUSIONS

PTMA is a relatively novel technique that exploits the relationship of the CS and MA. The position of the CS in the coronary groove, distance between the CS and MA and the relationship with the Cx limit this procedure.

Keywords: coronary sinus, clinical anatomy, percutaneous mitral annuloplasty

Autolog Cartilage Transplant in Patellar Osteid Osteoma – Case Report

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INTRODUCTION

Osteoid osteoma as a benign bone tumor may occur in any bone; however the most common places are the bones of the lower extremity. Rare localization of osteoid osteoma needs special treatment in order to prevent long term complications.

The aim of our case report is to present another possibility in surgical treatment of a patellar osteoid osteoma in a young male patient.

CASE REPORT

A 22 year old patient presented at the Orthopedic and Trauma department in the Emergency University Hospital of Bucharest, with pain and swelling, of the right knee joint. The patient underwent several investigations like standard laboratory examinations, X-ray, MRI, and CT, which describes a single, well defined osteolytic lesion near the articular surface of the patella. Surgical treatment removed the affected articular surface and the underlying bone lesion, followed by reconstruction with autolog cartilage transplant.

DISCUSSIONS

There is no reported case of malignant transformation of osteoid osteoma, however rare localization of the tumor may have a preserved prognostic. The presence of the cartilage lesion of the patella induced inflammatory response with the aforementioned symptoms, and a vicious circle worsens the histological and biomechanical status of the femuro-patellar joint.

CONCLUSIONS

Osteoid osteoma situated close to the articualr surface of the patella can be treated with autolog cartilage transplant, which not only reconstructs the articular surface but also prevents further complications like cartilage damage.

Failure of Proximal Femoral Fractures Osteosynthesis in Elderly Patients - Case Report

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INTRODUCTION

The proximal femoral fracture is a very common pathology in elderly patients but it represents a major challenge due to the possible mechanical complications following ORIF in this age group. The low bone density of these patients increases the chance of osteosynthesis failure by creating local unfavorable biomechanical conditions. Therefore delayed union or nonunion of bone fragments bring the need for repeated surgeries in order to properly manage these complications.

CASE REPORT

We present the case of a 58 year old female patient with repeated implant failure who was initially treated for a femoral diaphysis fracture with intramedullary nailing, locked proximally and distally. The patient presented with a secondary fracture at the site of the proximal locking screws which created the need of another type of implant. This was the starting point for repeated failures managed with a series of interventions including proximal femoral nail antirotation (PFNA), gamma nail and lastly DHS.

CONCLUSION

Using different implants with different biomechanical properties in elderly, osteoporotic patients for the management of the primary osteosynthesis failure increases the risk of periimplant fractures and implant failure. This brings great challenges for the orthopedic surgeon in finding the initial right osteosynthesis method and managing the possible subsequent mechanical complications.

Rare Musculoskeletal Tumors of Fibrous Origin

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INTRODUCTION

Tumors of fibrous origin include benign but locally aggressive lesions like desmoplastic fibroma (DF) and malignant tumors like fibrosarcoma (FS), both representing rare types of musculoskeletal tumors. Desmoplastic fibroma is a very rare bone tumor with a reported incidence of 0.06% of all bone tumors and 0.3% of all benign bone tumors. Fibrosarcoma represents only about 10% of musculoskeletal sarcomas and fewer than 5% of all primary tumors of bone.

CASE REPORT

In the current report we present the case of a 20 year old female with desmoplastic fibroma of the left femoral diaphysis and a case of a 40 year old female with fibrosarcoma of the left elbow, both treated in the Orthopedics and Traumatology Department of Bucharest University Emergency Hospital. The imaging studies revealed nonspecific imaging features of solitary lesions with aggressive characteristics. After incisional biopsy and histological confirmation of the diagnoses both patients were treated surgically, performing resection of the tumor tissue, followed by adjuvant chemotherapy in the case of fibrosarcoma and in the case of desmoplastc fibroma of the femur reconstruction was performed using a modular cemented prosthesis.

CONCLUSION

Diagnosis of these rare diseases is challenging and often inaccurate hence recognition of these entities is important to ensure proper surgical resection of the aforementioned lesions. However, superior surgical experience is needed because of the rarity of the diseases and the difficult reconstruction procedures required sometimes.

Mediastinal Cyst Mimicking Intrathoracic Pheochromocytoma

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Mediastinal pheochromocytoma, also known as functional paraganglioma occurs in the chest for less than 2% of all pheochromocytomas.

We present the case of a 34 years old female patient admitted with a high posterior mediastinal tumor and typical symptoms of cathecolamine excess; blood and urine samples also showed high concentration of metanephrines. The CT scan showed a 2 cm tumor located in the posterior mediastinum, very high. No other tumors were detected by the CT scan. It should be mentioned that the patient also presented with Horner's syndrome, suggesting stellate ganglion involvement.

We decided for a thoracoscopic approach and we were able to completely resect the lesion – the surprise was that, even though we were expecting a solid tumor, we actually encountered a mediastinal cyst, not suitable with the supposed diagnosis. After completely exploring the region in order exclude the presence of a solid tumor we decided to close the patient. Postoperatively, the patient's evolution was perfect, the blood pressure and heart rate became normal, Horner's syndrome disappeared twelve hours postoperatively.

The causes of paroxysmal hypertension in patients in whom pheochromocytoma has been excluded (pseudopheochromocytoma) usually remain unclear. Blood pressure disturbances and symptoms of catecholamine excess in these patients may reflect activation of the sympathetic nervous and adrenal medullary systems. We suppose that these systems were activated by the cyst pressure on the stellate ganglion, supposition sustained by the disappearance of symptoms and serum and urinary metanephrines 2 months after surgery.

The Impact of Thymectomy during Infancy on T-Cell Immunity

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OBJECTIVES

Thymus plays an important role in the generation of naive lymphocytes T as it is the only source of LT diversity. Thymectomy during pediatric cardiac surgery is generally accepted, as it allows a large view of the surgical area. Thymectomy at an early age has shown to affect the number of CD4+ and CD8+ T-cell, as it reduces the number of naive T-cells. We aimed to find out which are the long-term consequences on the T-cell compartment after thymectomy.

MATERIEL AND METHODS

30 patients thymectomized during the first 3 years of life for congenital heart defects at Hôpital Necker Enfants Malades, Paris, France during 2004-2014 were included. Blood samples were taken before surgery and during the annual follow-up. MRI was added for detection of thymic tissue during follow-up. The exclusion criteria were genetic syndromes. T-cell subsets and TRECs were determinated for each patient. The immunologic parameters were compared with age-matched control group.

RESULTS

The blood samples before thymectomy showed total, naive and memory CD4+ and CD8+ comparable with those from the age-matched control group. During the first 4 years after thymectomy, CD4+ and CD8+ have decreased have decreased in the operated groups in comparison with the control group ($p<0.002$, $p<0.002$). The reduction of total CD4+ and CD8+ was due to the decline of naive CD4+ and CD8+($p<0.012$, $p<0.012$), as the memory CD4+ and CD8+ were comparable with control group ($p=0.2$, $p=0.16$). After the age of 4, total and naive CD4+ and CD8+ T-cells reached values similar to no thymectomized patients ($p=0.43$, $p=0.56$ and respectively $p=0.56$, $p=0.63$). To find if the recovery was due to new formed thymic tissue, total CD4+ TREC was searched. During the 4 years after surgery, this declined ($p<0.05$), but after the age of 4 it reached the values of the healthy group ($p=0,01$). The MRI found thymic tissue in 27 patients after a median of 3 years after surgery.

CONCLUSION

Thymectomy affects T-cell compartment during the first 4 years of life, but after this age there is a restoration of T-cell pool due to *de novo* formation of thymic tissue.

Correlations between Chronological and Vascular Estimated Age in Patients with Type 2 Diabetes Mellitus and Impaired Renal Function

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PREMISES

It is known that aging leads to increased vascular stiffness, which was also related to impaired renal function (IRF). Meanwhile, the onset of type 2 diabetes mellitus (T2DM) occurs several years before clinical diagnosis.

The objective of this study was to establish the relationship between age at diagnosis of T2DM and vascular age in patients with IRF.

MATERIAL AND METHODS

Out of 300 patients with T2DM evaluated in our department 150 patients with IRF were selected (Modified Diet in Renal Disease = MDRD < 90 ml/min/1.73 m^2), with age between 38-80 years (mean age 65.47 ± 4.3 years). Data regarding age at onset and duration of diabetes were recorded. Anthropometric measurements were also performed. Using Vasera VS 1000 Fukuda Denshi device, the vascular age was estimated, by measuring cardio-ankle vascular index (CAVI) and pulse pressure (PP) in the dominant member.

RESULTS

150 patients with T2DM and IRF were divided into 4 groups according to age at diabetes onset: 1) 30-40 years 2) 41-50 years 3) 51-60 years and 4) over 60 years. Although between the first and last group there were no significant differences regarding MDRD (73 vs. 64.58 ml/min/1.73 m^2, p = 0.18), CAVI (8.9 vs. 8.76 m/s, p = 0.43) and PP (95.75 vs. 89.82 mmHg, p = 0.28), the vascular estimated age was greater than chronological age in a significantly higher percentage (75% vs. 29.41%, p <0.05), even though the mean age in group 4 was significantly higher than in group 1 (72.88 vs. 61.25 years, p = 0.03). This could be explained by the longer duration of diabetes in group 1 vs. group 4 (24.75 vs. 6.35 years, p = 0.03) and by the difference in body mass index (40.8 vs. 31.29 kg/m^2, p = 0.04).

CONCLUSIONS

In eldery patients with T2DM and IRF the vascular estimated age is greater than chronological age in those subjects with age at diabetes onset under 40 years. This could be influenced by the duration of diabetes and body mass index and it was not related to arterial stiffness.

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Clinical and Epidemiological Aspects of Melanoma in Our Clinic

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INTRODUCTION

Melanoma, a malignant tumor that develops from melanocytes, is the most aggressive skin cancer and is associated with a worldwide rising incidence.

Materials and methods: We analyzed the cases of melanoma diagnosed in our department over a five year period. The data was stratified by gender, age, clinical diagnosis, histopathological diagnosis, Clark's level of invasion, Breslow thickness and time of presentation. We used Mann-Whitney test and performed analysis of variance ANOVA on our data.

RESULTS

95 patients were diagnosed with melanoma in the dermatology department of our hospital between 2009 and 2014. The study showed a female predominance (ratio F:M- 1.2:1). The mean age at diagnosis was 56. In 73.7% of the cases the diagnosis was established on clinical criteria and confirmed by histopathological examination. Based on the clinical appearance, melanomas were most commonly confused with nevi (11.6%) and basal cell carcinomas (7.4%). Superficial spreading melanoma was the most common type and accounted for 49.5% of all cases, followed by the nodular type (26.3%). With respect to melanoma microstaging, the patients were most frequently diagnosed at Clark's level of invasion IV (45.3%), with an average of 3.59, and an average Breslow thickness of 3.57 mm. The age and gender stratification showed an age at diagnosis of 54.6 for females and 58.44 for males ($p=0.189$). The Clark's level-gender stratification showed a mean Clark's level of 3.43 in females and 3.78 in males (both non-normal distribution) and the Breslow thickness-gender stratification showed an average of 2.91 mm, median 1.32 mm for females and 4.35 mm, median 4.50 mm for males -both non-normal distribution ($p=0.004$). Most cases were diagnosed between May and August, and females were more likely to develop melanomas on sun-exposed areas. With respect to the patient distribution by year, most patients were diagnosed in 2011 (25/95) and 2010 (24/95). We assessed if there is a difference between years of presentation, in respect to the median age of patients. The results ($F=1.328$, $p=0.26$) showed there are no statistical differences in age of patients between years of presentation.

CONCLUSIONS

The age at diagnosis was not influenced by gender. The Breslow thickness however was influenced by patient's gender. In males Breslow thickness was statistically significantly higher than in females. The age was also correlated with the Breslow thickness our study showing a higher Breslow thickness with the increase in age. Females had a higher tendency to develop melanomas on the forearms, calves and lateral-cervical area than males. Most melanoma presentations happened between May and August. The correlation between the clinical diagnosis and the histopathological diagnosis was 73.7%. Our data showed no difference regarding the patient's age at onset with respect to the year of presentation.

Antituberculosis Drug Resistance Patterns of *Mycobacterium Tuberculosis* Isolates from Children and Adolescents with Pulmonary Tuberculosis

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OBJECTIVES

Tuberculosis (TB) in children is still a challenge. Microbiological diagnosis is often difficult, sputum samples being paucibacillary. In this context, the treatment could be empirical. The aim of our study was to assess the drug susceptibility profile for Mycobacterium tuberculosis strains isolated from children and adolescents with pulmonary tuberculosis.

MATERIAL AND METHOD

We conducted a retrospective study. Data were collected for two years (2009-2010), from registers including data regarding the susceptibility to antiTB drugs of 149 strains of M. tuberculosis isolated from children and adolescents aged 0-18 years. Data were available for susceptibility to Isoniazid (HIN) and Rifampin (RMP) for all strains. For MDR (multidrug resistant) strains data were available on the susceptibility to 9 antiTB drugs (HIN, RMP, Ethambutol, Streptomycin, Ethionamide, Cycloserine, Para-aminosalicylic acid, Ofloxacin, Amikacin).

RESULTS

Most cases of pulmonary TB were identified in subjects aged between 15-18 years (46.9%), but a significant percentage was also observed in the age group 0-4 years (14.7 %). Gender distribution was roughly equal, with a slight predominance of the male sex (53.6%). Analysing the resistance pattern of isolated Mycobacterium tuberculosis strains, 6% (9) showed resistance to HIN and 10.7% (16) showed resistance to HIN and RMP (MDR strains).

Regarding the resistance to first line antiTB drugs of the MDR strains, it was observed that half of these (8) showed resistance only to HIN and RMP and 3 showed resistance to all four first line antiTB drugs which were tested. In terms of resistance to second line antiTB drugs, we identified one resistant strain to Kanamycin and one resistant strain to Ethionamide. There were no cases of extensively drug resistant TB.

CONCLUSIONS

An increased incidence of drug resistant strains was observed among children and adolescents. This reflects the increased incidence of resistant strains in the population, given that children acquire TB from adults. Treatment in this age group is more difficult. There are no sufficient data on the use of second line antiTB drugs in children diagnosed with MDR-TB. The most important issue remains the prevention of TB among adults, by educating the population and administrating an early and proper treatment to patients with TB.

Antibiotic Susceptibility of Organisms Causing Urinary Tract Infection

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INTRODUCTION

Urinary tract infections represent an important public health issue, being the most frequent communitarian and nosocomial infections. Every year, 150 million people, most of them females, are diagnosed with urinary tract infection. Urinary tract infections are often treated with broad spectrum antibiotics, which lead to the development of resistant strains. Our aim was to evaluate the antibiotic susceptibility of the pathogens isolated from the patients with urinary tract infections.

MATERIAL AND METHOD

Data were collected between September, 2013 and June, 2014 from a medical laboratory. We collected 100 urinary samples and used the following culture media: CLED (Cystine- Lactose- Electrolyte- Deficient), CPS (chromogenic medium used for the identification or counting the colonies of *E. coli, Klebsiella, Enterobacter, Serratia* and *Proteus*), culture medium with bile esculine (for the isolation of the enterococci) and Chapman medium (mannitol- salt- agar), used for the identification of the staphylococci. In order to identify the pathogens involved in the etiology of UTI we used a series of biochemical tests. The antibiotic susceptibility of the isolated bacterial strains was tested using the diffusimetric method, on Muller- Hinton medium.

RESULTS

The most frequent pathogen isolated from the urine cultures was *E. coli,* followed by *Klebsiella spp*. Most of the strains isolated (35%) were resistant to Amoxicillin/ Clavulanic Acid. The susceptibility to Cefuroxime was manifested by 62% of the strains. The resistance to Sulfometoxazole/ Trimetoprim was around 39.7%, among the 83 strains that were tested and the resistance to Norfloxacin was manifested by 15.5% of 71 strains. Low resistance (5.7% of 83 strains) to aminoglicosides was noticed.

CONCLUSIONS

The isolated strains manifested a high resistance to Amoxicillin/ Clavulanic Acid, Sulfometoxazole/ Trimetoprim and a lower resistance to less frequently used antibiotics, such as aminoglicosides. It is important to know the susceptibility patterns for an adequate treatment. The microbiological diagnosis is essential as well as a very good collaboration between clinical and laboratory specialists.

Fertility Preservation for Young Patients with Cancer: what Can Be Offered?

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BACKGROUND

Infertility is a major quality of life concern, and progress in cancer care and improved long-term survival rates of young women with cancer lead to an increased interest in fertility preservation. Cytotoxic drugs, radiation therapy and surgery can all affect the patient's fertility and influence therapeutic options.

MATERIAL AND METHODS

We conducted a literature review aiming to evaluate the current options to preserve fertility in female patients with cancer. We searched PubMed/Medline, Cochrane Clinical Trials between Jan 1, 2000 and Dec 2014, for reports published in English using key words "fertility preservation", "cancer", "cryopreservation", " cancer treatment", "oncofertility". Publications were selected from the past 5 years, but older or reference publications that we considered relevant were also included.

RESULTS

Several methods have been developed or are under investigation for preserving fertility in young women. The most well-established method is embryo cryopreservation followed by cryopreservation of oocytes and ovarian tissue.

CONCLUSIONS

Fertility preservation requires individualization for each patient and pretreatment counseling.

Oncofertility is a new challenging specialty with many approaches, some of them still experimental. The field of fertility preservation is becoming an important part of cancer care in young patients.

Keywords: fertility preservation, cancer, cryopreservation, cancer treatment, oncofertility

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The Effect of Different Oxygen-Glucose Deprivation Durations on the Metabolism of Mature Hippocampal Cell Cultures

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AIM

Neurons depend exclusively on glucose aerobic metabolism and neuronal vulnerability changes under metabolic deprivation. In this study we have used oxygen-glucose deprivation (OGD) exposure of mature hippocampal cell cultures as an *in vitro* model of cerebral ischemia, in order to study the effect of different durations of OGD exposure on the threshold for neuronal lesion.

MATERIALS AND METHODS

Primary cultures of hippocampal neurons were obtained from Wistar rat pups (P0). Cell cultures grew in B27 supplemented Neurobasal-A media. On DIV 8 (days *in vitro*), mature cultures underwent three different durations of OGD: 1h, 1.5h and 2h. At the same time, one plate per culture was kept as control. Assessment of cellular metabolism and viability was performed using the resazurine test.

RESULTS

Cellular viability after OGD exposure was compared with the viability of the control, normoxic cultures, considered as being 100%. Thus, 1h OGD exposure decreased the cellular viability to 96.83% ± 5.34% (mean ± SEM) ($p>0.05$), while 1.5 h OGD exposure resulted in a viability of 92.37% ± 2.86% ($p>0.05$). The viability of the cells exposed to 2h OGD showed a viability of 64.45% ±3.85% ($p<0.001$). There was no statistically significant difference between the viability of the cells that were exposed to 1h OGD and 1.5h OGD ($p>0.05$), but there was a statistically significant difference between 1.5h OGD exposure and 2h OGD exposure ($p<0.001$).

CONCLUSIONS

Our results show that 1h OGD and 1.5h OGD have a mild effect, with no statistical significance, on the metabolism of mature hippocampal neurons, as shown by the resazurin test. However, the 2h OGD exposure of mature hippocampal neurons decreased the metabolism of the cells to 64.45%±3.85%, showing a significant temporal progress of cellular vulnerability over the last 30 minutes of exposure. We conclude that OGD in vitro model can be used to test the neuronal response to different lesion degrees and provides an important tool for neuroprotection studies.

Abdominal Wall Endometriosis (AWE) – a Diagnostic Challenge

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OBJECTIVES

The extra-pelvic localization of endometriosis is rare and it occurs more commonly in abdominal wall, followed by umbilicus, vulva, perineum. It may be found near previous abdominal scars, especially after cesarean sections or gynecological surgical interventions. These sites support the "iatrogenic direct implantation theory" (a transport theory) - the implantation of the escaped endometrial cells during the surgery somewhere into the surgical wound (abdominal wall).

METHOD AND MATERIALS

We studied 28 patients. The age of the patients ranged from 22 to 48 years. We found a history of a previous caesarean section in all of the patients. Two patients had myometrectomy and one hysterectomy. All patients had an abdominal mass as a presenting symptom. Three patients had two different abdominal masses. 20 patients experienced pain, and 11 patients experienced cyclic pain. Cyclic pain was more frequent in small lesions, continuous pain in larger lesions.

RESULTS

AWE was often mistaken at presentation for some surgical conditions like abscess, lipoma, incisional hernia or some sort of soft tissue tumor. Eight patients complained of cyclic, intriguing pain during a routine gynecological exam, all others presented in a surgery unit for abdominal mass and/or pain. Ultrasound of soft tissue, including Doppler and elasto-sonography suggested the possibility of endometriosis (hypo-echogenic with hyper-vascularity). In two cases, additional investigations were done (CT AND MRI). The ectopic endometrium is embedded in subcutaneous fatty layer and muscles of abdominal wall. Histological confirmation of endometriosis was based on detecting two out of the following aspects: endometrial stroma, endometrial - like glands and hemosiderin pigment granules.

CONCLUSIONS

A high index of suspicion may lead to a preoperative diagnostic of abdominal wall endometriosis. However, in an obese patient, diagnosis is usually difficult. Suggested prevention of abdominal wall endometriosis is thoroughly washing with saline during abdominal wall closure, whenever the endometrial cavity is entered.

Predictive Factors of Postoperative Atrial Fibrillation Occurrence after Aortic Valve Replacement in Severe Aortic Stenosis

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BACKGROUND

Postoperative atrial fibrillation (POAF) is a common complication after cardiac surgery, with increased risk of embolic events, heart failure and haemorrhagic complications. Still, the predictors of AF occurrence following aortic valve replacement (AVR) are not very well defined.

PURPOSE

We assessed the predictive value of preoperative longitudinal myocardial left atrial (LA) deformation and left ventricular global longitudinal strain (GLS) for AF occurrence after AVR in severe symptomatic aortic stenosis.

MATERIALS AND METHODS

We prospectively analysed forty-two consecutive patients in sinus rhythm, mean age 74 ±8 years, who underwent AVR for severe symptomatic aortic stenosis (aortic valve area <1cm ^{2} or <0.5 cm^2/m^2 and transaortic mean gradient >40 mmHg). Complete preoperative echocardiography was performed in all patients, including peak atrial longitudinal strain (PALS), global and segmental longitudinal left ventricular strain using two-dimensional speckle tracking. PALS values were obtained by averaging all segments on 4- and 2-chamber views (global PALS).

RESULTS

The incidence of POAF was 42%. On univariate analysis, aortic valve area (p=0.03), preoperative E/e' ratio (p=0.04), PALS (p= 0.001) and GLS (p=0.05) were correlated with the occurrence of POAF. Low left ventricular ejection fraction (P=0.07), age ≥80 years (p= 0.08) and an increased systolic pulmonary artery pressure (P=0.06) tended to increase the risk of POAF. Global PALS had the highest diagnostic accuracy (p <0.001; area under curve of 0.87) with a cut-off value <16.7%, sensitivity and specificity of 85 and 89 %, respectively in predicting POAF. The best GLS cut-off value for the prediction of POAF was -15% (83% sensitivity, 55% specificity, area under the curve 0.72). On multivariate analysis, GLS > -15% was an independent predictor of POAF (odds ratio 7.74; p = 0.035) and global PALS remained a significant predictor of POAF (p < 0.001).

CONCLUSIONS

Speckle tracking echocardiography analysis of LA myocardial deformation and left ventricular global longitudinal strain should be considered as promising tools for better risk stratification of postoperative AF occurrence.

The Impact of Thrombolytic Therapy on Markers of Right Ventricle Pressure Overload in Patients with Acute Intermediary High Risk Pulmonary Embolism

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OBJECTIVES

The purpose of this study was to assess the effect of thrombolytic therapy on echocardiographic markers of right ventricle (RV) dysfunction in patients with acute intermediary-high risk pulmonary embolism (PE), compared to classic therapy with unfractionated heparine (UFH). The potential benefit on this markers may lead to lower early morbidity and mortality rate in these patients.

MATERIAL AND METHODS

We studied 60 patients with acute (symptoms less than 2 weeks) intermediary-high risk pulmonary embolism. This is defined by a class III PESI score, positive biochemical markers of RV dysfunction (elevated NT-pro BNP), positive echocardiographic markers of RV presure overload (decreased TAPSE, increased RV diameter, decreased myocardial contraction velocity (MCV) by TDI). The patients were divided in two groups. The study group included patients with no contraindications for thrombolytic therapy, younger than 75 y.o, with no severe renal dysfunction. This group received thrombolytic therapy - t-PA 10 mg bolus, 90 mg over the next 2h, followed by UFH. The control group included patients who did not meet the inclusion criteria for the study group, receiving UFH alone, aPTT guided. The markers of RV presure overload were assessed on admision and after 72h. The data was gathered in EXCEL, and assessed by EPIINFO for statistical significance.

RESULTS

All the markers of RV presure overload were significantly improved in the study group compared to the control group. MCV increased by 61.2% in the study group compared to 21.5% in the control group ($p=0.008$). TAPSE increased by 59% in the study group compared to 29.8% in the control group ($p=0.007$). RV diameter decreased by 21.2% in the study group compared to 10.7% in the control group (p-0.004). NT-pro BNP level decreased by 64.48% in the study group compared to 43.51% in the control group ($p=0.007$)

CONCLUSION

Thrombolytic therapy has a definite impact on markers of a pressure overload in patients with intermediate high risk PE. Further studies are needed to assess the impact of clinical parameters.

Quality of Medical Care - Assessment of Hospital Staff Knowledge and Perception

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OBJECTIVES

Perceptions and expectations of the patients in relation to medical care have changed rapidly over the past decades, together with the health technology progress, the access to information and the evolution of concepts related to ethics and patients' rights. On another hand, knowledge of medical staff on quality of care has been developed, mostly in relation to medical technology and patient safety, and less in relation to general mechanisms for quality assurance. Our study is part of a larger research and aimed to assess the knowledge and the perception of medical staff in relation to quality assurance mechanisms and quality importance in a mono-profile hospital from Bucharest.

MATERIAL AND METHODS

We developed a questionnaire with four sections, among which two referred to general knowledge related to quality assurance mechanisms and to medical staff perception on the importance of quality of care respectively. The questionnaire was filled by nurses and resident physicians anonymously. Data collected were analyzed using descriptive statistics techniques. We calculated the quality score as arithmetic mean between score of staff knowledge and score of staff perception on quality of medical care. Score of staff knowledge was calculated as proportion of obtained, from the maximum score, being based on seven questions, each with one correct answer. The score of staff perception was calculated as mean of scores allocated by the responders to four questions related to their perception on quality importance. Equal weight was considered for each section.

RESULTS

102 subjects answered to our questionnaire (78 nurses ad 24 resident physicians). The overall quality score reached 85.3% (87.8% and 77.0% in nurses and resident physicians respectively). The score of perception was significantly higher that the score of knowledge (96.5% vs 74.1%). Each score was higher in nurses than in resident physicians, but the difference didn't meet the statistical significance.

CONCLUSIONS

Our results revealed a correct perception on the importance of the quality of care among medical staff (this perception tends to be higher in nurses than in resident physicians, probably due to the length of their professional experience and the specific responsibilities). However, in terms of knowledge on the mechanisms for quality assurance, our findings showed lower scores in both nurses and resident physicians, thus supporting the need for short training programs on quality assurance mechanisms among the medical staff.

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The Epworth Sleepiness Scale – in Contrast with Reality

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INTRODUCTION

Sleep apnea syndrome (SAS) has become a common and important pathology lately, due to its comorbidities and impact on the patient's quality of life (memory loss, irritability, loss of concentration, mood swings, morning headache, depression and daytime sleepiness which can lead to terrible accidents). It is a complex entity affecting 4-6% of the population, but not very well-known or spoken about in the media in Romania. Also, SAS is a major risk factor for cardiovascular diseases.

MATERIAL AND METHOD

We conducted a study on 22 patients admitted in the department of Cardiology of the Emergency Clinical Hospital Bagdasar Arseni, none of them presenting sleep apnea related symptomes, but rather its complications instead: hypertension, arrythmias, angina, heart attack, stroke. Following a detailed history, in which the patients described daytime sleepiness more or less significantly, they were asked to complete the Epworth daytime sleepiness scale. A score of 10 indicates daytime sleepiness and a score above 18 equals excessive daytime sleepiness. Poligraphy using the SleepDoc Porti 5 was performed on all of the patients, regardless of their score.

RESULTS

Although only 2 patients achieved a positive score on the Epworth scale (both of them presenting a pulmonary pathology associated with heart disease which could influence the Epworth scale), after the poligraphy reading all of the patients were diagnosed with obstructive sleep apnea (OSA) in different degrees of severity (2 patients with mild OSA with an AHI between 5-10 and 20 patients with severe OSA with an AHI above 30).

CONCLUSION

While the Epworth scale is a universal method used to appreciate the daytime sleepiness in patients with possible sleep apnea, it doesn't always relate with the AHI score this is true especially in patients with cardiovascular pathology, who are most of the time asymptomatic as far as OSA is concerned. Cardiovascular diseases, obesity and diabetes are most frequently associated with SAS. It is important to conduct a very well case history and to inquire the patients and their close relatives about their sleeping pattern (snoring, pauses in respiration during sleep), and to elaborate new screening techniques in cardiac patients with associated OSA.

Interaction of Aminoglycosides with Model and Cell Membranes

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AIM

Aminoglycoside antibiotics are a therapeutically important family of polycations that selectively inhibit prokaryotic protein biosynthesis in different bacteria. They are used to treat patients with serious infections caused by Gram negative (*Enterobacteriaceae, Pseudomonas aeruginosa*), as well as patients suffering of febrile neutropenia. Because these antibiotics are used in various long term treatments and because the membrane is the first barrier involved in antibiotics efficacy, the study of the interaction between drug and membrane (artificial or natural) is important for understanding the mechanism of this interaction.

Our aim was to study the damage in the membrane organization induced by aminoglycosides (gentamicin, amikacin and kanamycin).

METHODS

We tested the effect of 3 aminoglycosides: gentamicin, amikacin and kanamycin on artificial membranes (DMPC liposomes and DMPC mixed with cardiolipin) and membranes of EA.hy926 human endothelial cells. We used laurdan fluorescence spectroscopy and fluorescence anisotropy recordings on 1-(4- trim ethyl ammonium phenyl)-6-phenyl-1,3,5-hexatriene p-toluene sulfate (TMA-DPH) labeled liposomes and cell suspensions.

RESULTS AND CONCLUSION

In case of the DMPC liposome membrane, the presence of aminoglycoside antibiotics does not change the generalized polarization (GP) values at all tested temperatures. In case of liposomes in which the DMPC was mixed with cardiolipin, the presence of antibiotics induced changes in membrane general polarization (GP). The effect was more obvious in case of gentamicin, being statistically significant at almost all tested temperatures, whereas amikacin and kanamycin effect was significant only on specific temperature domains. In case of EA cells, the antibiotics induced a GP increase at all temperatures, the most pronounced effect being that of gentamicin. When membrane fluorescence anisotropy was measured, all three aminoglycosides (gentamicin, kanamycin, amikacin) induced a rigidity of liposomal membrane at all tested temperatures (15-37°C). The rigidity of liposomal membrane in the presence of aminoglycosides also occurred when mixed composition membranes (DMPC + CL) were used. The magnitude of the effect decreased in gentamicin-amikacin-kanamycin order. All three aminoglycosides also caused increased rigidity of the EA cell membrane, with greater effect at temperatures exceeding 27°C.

Anemia in Retroperitoneal Tumor Patients - Effect or Causality?

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Despite important progress in diagnostic methods in medicine, retroperitoneal neoplasias biological behavior remains mainly an enigma. These unusual tumors combine features of apparent benignity- silent development over many years, with extreme aggressiveness-growth to very important dimensions, involvement of multiple vital structures, inoperability, recurrence and poor prognosis even for patient operated on in a radical manner. These characteristics support the high tumor histopathologic heterogeneity that loses, in this way, its significance. In this context, the aim of the current study was to identify predictors and potential causative factors to explain more pronounced tumor aggressiveness.

PATIENTS AND METHODS

We conducted a retrospective study on a group of patients diagnosed and treated for retroperitoneal neoplasias in the first Surgical Clinic of Bucharest Institute of Oncology "Prof. Dr. Al. Trestioreanu" over a period of 13 years. We performed an extensive analysis for the identification of factors associated with tumors of higher aggressiveness.

RESULTS

Tumor type or grade had no significance in neoplastic aggressiveness analysis. Instead, a richer tumor vascularization has been significantly associated with more aggressive and extensive tumors that could not benefit from radical surgical interventions. In this context, the patients with preoperative anaemia presented more vascularized and aggressive tumors than the others.

CONCLUSIONS

Patient preoperative anaemia, that determines a hypoxic component, can significantly influence the evolution of retroperitoneal tumor patients by two mechanisms: the stimulation of tumor neoangiogenesis with the expression of more aggressive and resistant tumors and alteration of patient general biological status, decreasing his potential to survive major surgery. Anemia should be therefore reconsidered, as a parameter that expresses not only a tumor advanced stage, but also a stimulus for neoplastic proliferation that should be acknowledged and controlled.

Complications in Retroperitoneal Tumors Surgery

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The management of retroperitoneal tumors ia an ongoing challenge for the surgeon. The extremely difficult access into the retroperitoneal space, the complexity of the structures at this level, the particularities of aggressiveness in the development of retroperitoneal neoplasias explain the limited results of surgery. Often, for fear of complications, the surgeon limits the extension of an intervention, consciously sacrificing surgical radicality in favor of immediate safety and survival. The aims of the current study were the analysis of perioperative complications in the surgery of retroperitoneal tumors, with the evaluation of their circumstances of appearance, preventable character and impact on the therapeutic results and patient survival.

PATIENTS AND METHODS

This was a retrospective study on 155 patients with retroperitoneal tumors, operated on in the first Surgical Clinic of Bucharest Institute of Oncology "Prof. Dr. Al. Trestioreanu" over a period of 15 years. We performed an extensive analysis on the impact of perioperative complications on patient survival, predisposiding factors and preventive conditions.

RESULTS

5-year survival-rate was 54% for the entire group. Radical surgery has been achieved in 41.07% of all surgical interventions. Postoperative complications increased 6.29 times the risk of death (p=0.002).

5-year survival rate for the patients free of postoperative complications was 74%, significantly higher than 22% of the patients that suffered from operative complications (p=0.009). 80% of complications were significantly associated with non-radical surgery (p=0.01). The most frequent postoperative severe complications were digestive anastomotic dehiscences, myocardial infarction, respiratory failure.

CONCLUSIONS

Postoperative complications were significantly associated with higher death rates and non-radical surgery. Radical surgery did not increase the rate of operative complications. Therefore, the intention of surgical radicality should not be sacrificed for fear of surgical complications. The knowledge of the main types of severe complications in retroperitoneal tumor surgery, their anticipation, early diagnosis and even prevention are essential for increasing the survival rate in patients operated for retroperitoneal neoplasias.

Vascular Risk Score and the Operability of Retroperitoneal Neoplasias

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For primitive, as well as for secondary retroperitoneal tumor patients, the prognosis still remains reserved. Currently, a therapeutic standard for these neoplasias is lacking. A clear delimitation of the landmarks of tumor operability based on a certain staging, as is the case for other tumors, has not been validated yet. Our aim was to create a decisional model of surgical operability, to allow better orientated management of these neoplasias.

PATIENTS AND METHODS

We conducted an extensive study on a group of 155 patients with different types of retroperitoneal neoplasias, diagnosed and treated in the first Surgical Clinic of Bucharest Institute of Oncology "Prof. Dr. Al. Trestioreanu" over a period of 13 years. We analyzed the factors that significantly limit surgical operability and their impact on patient survival. We sought to create a risk scale to help the surgeon choose a better therapeutic approach.

RESULTS

Neoplastic vascular involvement and a richer tumor vascularization were the main factors that limited surgical radicality. We elaborated a vascular risk scale that included: the presence or absence of neoplastic involvement of large blood vessels, types of vascular involvement, number of vascular structures affected by the tumors, as well as the degree of tumor vascularization. Based on this vascular risk scale we were able to anticipate surgical operability, the risks and complications associated with the interventions, as well as patient survival.

CONCLUSIONS

Currently, there is no validated retroperitoneal neoplasias staging and therefore, the appearance of operability or inoperability of a tumor can become extremely misleading. A vascular risk score can be extremely useful in the preoperative positioning of the surgeon considering the particularities of vascular involvement by retroperitoneal tumors represent a major predictive factor for the success of a surgical intervention. A coherent decision can be made based on such an objective indicator, avoiding unnecessary interventions and identifying cases that would benefit from an operation. Such a risk scale could be an indicator of surgical complexity, highlighting the situations that would require multidisciplary surgical approaches.

A Case Presentation of a 40 Years Old Man with Familial Adenomatous Polyposis - Diagnosis, Treatment, Screening

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INTRODUCTION

Familial adenomatous polyposis represents a disease with autosomal dominant genetical inheritance, which occurs after alterations of the APC gene (adenomatous polyposis coli) on chromosome 5Q211. We present the case of a pacient with specific digestive symptoms of unknown etiology, until further investigations were made in our clinic.

MATERIALS AND METHODS

A 40 years old man presented to Floreasca Hospital's emergency room, with abdominal pain, constipation, nausea and voma. He was admitted on Gastroenterology department. Clinical examination was normal.

Colonoscopy revealed hundreds of polyps, starting from the rectum up to 60 cm of external anal hole: at this level, the colonoscope reached a group of voluminous polyps that caused obstruction, ranging from 2 mm to 4 cm, some of them being ulcerated.

Biopsies were done.

RESULTS

The patient was diagnosed with familial adenomatous polyposis syndrome.

He was transferred to the surgical department of Floreasca Hospital, where he underwent the only indicated treatment in polyposis – total colectomy. Also, his relatives have been called in for evaluation.

CONCLUSIONS

Late Familial Adenomatous Polyposis diagnosis is associated with reserved prognosis.

Genetic factors play the most important role in the development of the disease.

Colonoscopy screening is indicated for all subjects over 40 years (10 years earlier for those with family history of colorectal cancer or familial polyposis).

Keywords: intestinal polyps, colorectal cancer, treatment

Lymphangioma-Like Kaposi Sarcoma: Challenges in Differential Diagnosis

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BACKGROUND

Kaposi's sarcoma (KS) is a multifocal vascular neoplasia with uncertain histogenesis, characterized by angioproliferative multifocal tumors affecting mainly the skin. The "lymphangioma-like" or 'bullous KS' variant is a rare morphologic expression of KS, accounting for less than 5% of all cases and appearing among all KS epidemiological subtype. This review provides a comprehensive overview of clinical and pathological characteristics of patients with lymphangioma-like Kaposi's sarcoma LLKS.

METHODS

We included 93 patients with Kaposi sarcoma, aged 36 to 90 years; diagnosis was made as a result of the histopathological examination. The surgical excision samples were fixed in 10% buffered formalin, paraffin embedded and stained with Hematoxylin–Eosin for histopathological examination. Immuno-histochemical staining was performed using the following antibodies: CD34, CD31, actin, myoglobin, desmin, cytokeratin and vimentin.

RESULTS

The histological features of LLKS vary considerably from the traditional KS, classic KS areas have been absent from some lymphangioma-like KS. Most of the patients were diagnosed in nodular stage and confirmed by positive immune-histochemical staining. Clinically, each patient presented with violaceous patches, papules or plaques; some of the patients presented with bullous lesions. All tumor cells, including those associated with LLKS foci, showed a strong and diffuse reactivity for anti-HHV-8 LNA-1and anti-CD34.

CONCLUSIONS

Differential diagnosis of lymphangioma-like Kaposi's sarcoma LLKS with other vascular tumors may be very difficult and a detailed histologic study in combination with immunohistochemistry, such as staining for HHV-8 latent nuclear antigen, is essential for correctly diagnosing lymphangioma-like KS.

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Succentuariate Placenta – Antepartum and Postpartum Findings – Case Report

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INTRODUCTION

The succentuariate placenta (the placenta with accessory lobe) represents a placental morphological anomaly when one placental lobe is separated from placenta and occur in 2% of cases. The differential diagnosis is made with bilobate placenta and with placenta from multiple pregnancies. Complications are bleeding during pregnancy, with preterm birth, abruption placenta, increasing maternal-fetal morbidity and mortality.

MATERIALS AND METHODS

A 25 year old woman, 35 weeks pregnancy is admitted to the hospital for uterine bleeding. Continue close clinical monitoring was advised. Ultrasound examination reveals a structural placental anomaly (anterior corporeal placenta with access lobe at 2 lower from the edge of the internal cervical opening). Abundant bleeding calls for emergency surgery.

RESULTS

Intraoperatory, an adherent placenta with accessory lobe and a 3/4 cm hematoma at the place of accessory lobe were found.

CONCLUSIONS

Although rare, structural abnormalities of the placenta (placenta bilobata succenturiata placenta) can cause ante and intrapartum complications. The main problems occur at birth, especially during delivery of placenta. Careful monitoring and prompt intervention can reduce the materno-fetal morbidity and mortality rate due to this condition.

Keywords: placenta, succenturiata, ultrasound, pregnancy

Rapid Development of Bone Difformities in Adolescents on Renal Replacement Theraphy

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INTRODUCTION AND AIMS

Achievement of optimal bone mass during childhood and adolescence is the best predictor for bone health in the adult life. In children, nutrition, physical activity, growth, endocrine and metabolic function is mandatory for a normal skeleton and cardiovascular system development. As kidney function decreases, a progressive deterioration in mineral homeostasis emerges, with changes in circulating levels of hormones, calcium and phosphorous. These are important obstacles to obtain optimal bone strength and cardiovascular integrity. The aim of the study is to present the differences between children with End Stage Renal Disease (ESRD) regarding the age of onset of Renal Replacement Therapy (RRT) and Dialysis Vintage.

METHODS

Single center, retrospective study on o cohort of 23 patients on RRT, 13 boys and 10 girls, median age 15 ± 1.8 years. All girls were older than 12, and all boys older than 14 years. 9 children started RRT at adolescence, median Dialysis vintage 41.5 ± 7.36 months compared to 14 that started before adolescence, median Dialysis vintage 43.8 ± 11.72. We used Pearson Correlation to analyze the data.

RESULTS

From the 9 children that started RRT at adolescence 5 presented bone deformities. From the 14 children that started RRT before adolescence, 4 presented bone deformities. The difference between the two groups was statistical significant ($r=0.846$, $p<0.005$, CI=95%). There was no statistical significant correlation between bone deformities and Dialysis vintage.

CONCLUSIONS

Adolescence is a period of rapid growth and bone maturation and the imbalance between Calcium Hungry Skeletal System and the dysfunctional mineral metabolism is causing the rapid development of bone deformities with a major impact on morbidity and mortality. The patients that start dialysis before adolescence rarely present bone deformities because, even if they do have the age, in reality, from a sexual point of view, they don't achieve normal development.

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Pain Assessment and Short Term Functional Results after All-Inside Anterior Cruciate Ligament Reconstruction

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OBJECTIVES

The aim of this study was to follow-up the efficiency of the arthroscopic anterior cruciate ligament (ACL) reconstruction by the all-inside technique and to assess the pain and the redeeming for a number of 16 patients who underwent this novel technique.

MATERIAL AND METHOD

We performed a retrospective study over 2 years (2012-2014) on 16 patients, mean age 30 years, diagnosed with unilateral ACL injury who underwent reconstruction with the all-inside technique at the Orthopedic section of the University Hospital of Bucharest. Exclusion criteria were the multi-directional instability and the presence of lower limb misalignment. The time elapsed between the injury and the surgery was, on average, 63 days. The trauma occurred during sports activities (12 patients) whereas in 4 cases the trauma was caused by accidental precipitations. Several associated lesions were found: 7 lesions of the medial meniscus, 3 lesions of the lateral meniscus, 2 lesions of both the medial and lateral meniscus and 1 osteochondral lesion of the lateral femoral condyle. The evaluation criteria was the pain upon presentation, 3 weeks after surgery and further on 5 months after surgery, the analgesic consumption and functional assessment.

RESULTS

All the patients were retrospectively clinicaly followed for 5 months (mean follow-up). At 3 weeks, the pain level on the Visual Analogical Scale was 5.2 and the postoperative analgezical consumption was in acceptable limits. The mean KSS distribution was as follows: a score of 80-100 included 9 of the patients with an average age of 27, 70-79 in the case of 5 patients with the average age of 32 and the 60-69 score came from 2 patients with the average age of 35. These outcomes were carried out 4 weeks after the surgery and, likewise, the group received indication to wear a brace for the first two weeks post intervention towards a progressive recovery. The rehabilitation was regained rapidly by avoiding prolonged stiffness and the patients could return fully to their sports. In the case of 3 patients, during the second-look arthroscopy, small vessels were found on surface of the ACL grafts at 5 months post-reconstruction.

CONCLUSIONS

The all-inside ACL reconstruction is an up-to-date and far gone arthrocopic technique that provides the least invasive approach to ACL reconstruction to date. Furthermore, it offers anatomic ACL reconstruction, quick recov-

ery, less postoperative pain due to the lack of violation of the tibial cortex with a large diameter tunnel and, likewise, great cosmesis.

Keywords: all-inside technique, pain, anterior cruciate ligament, reconstruction

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Knee Arthrodesis, Limb Salvage Surgery for Failed Total Knee Arthroplasty

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OBJECTIVES

Knee arthrodesis is a limb salvage procedure used to treat patients with failed infected total knee arthroplasty. The aim of this study was to follow-up the efficiency of treated infection and the results of the various techniques of arthrodesis in patients with periprosthetic joint infection (PJI).

MATERIAL AND METHOD

This is a retrospective study over 7 years (2008-2014) in which we included patients diagnosed and treated for prosthetic knee joint infection in the Orthopedic Department of the University Hospital of Bucharest. 21 patients were diagnosed with septical complications after total knee arthroplasty (1.9 %). All the patients were treated by removing the prosthesis, debridement and inserting a cement spacer in combination with antibiotics. Six patients underwent knee arthrodesis after the removal of prosthesis driven by infection.

RESULTS

We had 6 cases of arthrodesis: 4 women and 2 men with an average age of 70.6 years old (from 62 to 64). The average time between primary arthroplasty and infection was 1.2 years (between 14 days and 3 years). Before the arthrodesis, an average of three surgical interventions were performed to treat the infection. Four patients presented negative cultures. The techniques of arthrodesis used were: plate and screws (1 case), screws (1 case), external fixation (1 case) and intramedullary nail (3 cases). In all cases the patients were cured and they were followed-up for an average period of 2.3 years (between 1 and 3 years).

CONCLUSIONS

Arthrodesis may be a limb salvage procedure, when attempts to cure a periprosthetic joint infection fail. The patient benefits from a stable and unpainful limb, with a low rate of complications, and also from a real chance of social reintegration.

Keywords: Arthrodesis, knee prosthesis, infection

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Acneiform Eruptions Induced by Epidermal Growth Factor Receptor Inhibitors

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INTRODUCTION

Epidermal growth factor receptor (EGFR), alone or in combination with chemotherapy or radiotherapy, are efficient antineoplastic agents used in various types of cancer (colorectal cancer, non small cell lung cancer, squamous cell carcinoma of the head and neck). Due to the fact that EGFR are also expressed by the normal skin tissue, these drugs present frequent cutaneous adverse reaction (mainly acneiform eruptions) that lead to serious discomfort and decrease treatment adherence.

OBJECTIVES

This presentation outlines the classification, the pathophysiology and therapy of the acneiform reaction that accompanies the EGFR inhibition.

MATERIAL AND METHODS

A literature search within PubMed database was conducted searching for relevant English reviews on this subject.

RESULTS

The acneiform reaction, that occurs in 80-90% of cases, usually after 1 week of treatment, consists of erythematous papules and pustules without comedones with a distribution similar to acne vulgaris. It is often accompanied by pruritus, unlike other acneiform reactions induced by drugs. The presence and intensity of the acneiform reaction has a positive correlation with the response to treatment and overall survival rates. The incidence and degree of toxicity of the eruptions appear to correlate with doses and duration of treatment with EGFR inhibitors. Most eruptions are mild (grade 1 or 2 of skin toxicity), but may cause a severe discomfort. The prophylactic use of systemic tetracycline is the most effective and well-tolerated treatment option available at this moment.

CONCLUSION

Acneiform reaction, even if it is a positive sign for treatment outcome, has a significant impact on the patients physical and emotional health and may affect treatment adherence. Severe impairment requires dose reduction or temporary/permanent interruption of therapy, preventing complete administration of treatment at an effective dose and for an optimal period of time. Therefore, prevention and correct management of this condition may improve adherence to treatment and the patient's quality of life.

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The Impact of Alcohol Consumption on the Etiopathogenesis of Essential Arterial Hypertension

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OBJECTIVE

Our aim was to find an association between alcohol intake and hypertension.

MATERIAL AND METHODS

We performed a prospective study over a period of 4 years on a sample of 200 adult patients aged 30-55 years old diagnosed with essential hypertension stage I and II. We collected anamnestic data related to alcohol consumption and divided the patients in several categories as follows: occasional (I), once a week (II), 2-3times/week (III), every day (IV).

RESULTS

The average values for systolic (SBP) and diastolic blood pressure (DBP) were calculated for each of the four categories. The following average SBP/DBP values were obtained: (I):150,4/94,8 mmHg, (II):155,5/95,9 mmHg, (III):164,2/97,9 mmHg, (IV):178,1/102,4 mmHg. We conducted a one-way ANOVA test that showed there was a statistically significant effect of alcohol consumption on both SBP ($F=466,508$, $dF=3$, $p<0,001$) and DBP ($F=59,770$, $dF=3$, $p<0,001$). The post hoc analysis performed using the Bonferroni test revealed that the average values of SBP were significantly lower among patients with low alcohol consumption compared to the SBP values of patients with more frequent alcohol intake. The largest difference for SBP values was observed between categories (I) and (IV): the SBP of patients with daily alcohol intake was on average with 27.7 mmHg greater than the corresponding SBP of occasional alcohol drinkers (95% CI 26.09 to 29,3; $p<0.001$).

CONCLUSIONS

We found an association between alcohol intake and blood pressure i.e. blood pressure values were significantly higher in alcohol drinkers, especially daily consumers, but this relationship was explained by the social and nutritional behaviors of alcoholics and their poor adherence to medical advice.

Plasma Cytokines in Distinct Phenotypes of Jak2v617f-Mutated Essential Thrombocythemia

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INTRODUCTION AND OBJECTIVES

Essential thrombocythemia (ET) is a Philadelphia – negative myeloproliferative neoplasm (MPN) that involves primarily megakaryocytic lineage resulting in an excessive production of circulating platelets. Approximately 50% of ET patients harbor the somatic driver mutation JAK2V617F in their granulocytes. According to 2014 WHO Clinical, Molecular and Pathologic Classification of MPN (WHO-CMP) three JAK2V617F-mutated ET phenotypes are described: normocellular ET, hypercellular ET with increased erythropoiesis (prodromal PV) and hypercellular ET with megakaryocytic-granulocytic myeloproliferation (ET.MGM). Recent data suggest that chronic inflammation mediated by cytokines might impact clonal MPN-evolution and disease complications.

This preliminary study aimed to investigate the plasma levels of several cytokines in patients with different JAK2V617F-mutated ET phenotypes.

MATERIAL AND METHODS

Plasma levels of interleukins IL1-beta, IL-8, IL-6 and IL-10 were measured by ELISA in 40 patients with persistent thrombocytosis who were positive for JAK2V617F mutation at the moment of diagnosis. WHO-CMP criteria were used to classify patients in ET subtypes considering clinical data, laboratory results (serum erythropoietin and LDH, V617F allele burden) and bone marrow histology. Additionally, a separate group of five ET patients with a second neoplasm upon diagnosis was assessed. The median value for each cytokine was calculated and used for comparison across ET groups.

RESULTS

IL-8, IL-10 and IL-6 registered significantly higher median values in ET.MGM group in comparison with normocellular ET patients ($p=0.0045$, $p=0.0054$ and respectively $p=0.0138$). Although patients with prodromal PV had a IL-6 median value higher than normocellular ET this was not statistically significant. ET patients with second neoplasm had the highest median values for IL-8 and IL1-beta.

CONCLUSIONS

Data obtained suggest that ET.MGM phenotype associated with high risk for myelofibrosis is characterized by significantly higher plasma levels of IL-8, IL-10 and IL-6 compared to normocellular ET that displays a more stable clinical course. Thus, cytokines might have prognostic relevance, but larger studies are needed to confirm the results.

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Clinical Aspects and Management of Pediatric Haemolytic Uraemic Syndrome – Case Presentation

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AIM

Haemolytic Uraemic Syndrome (HUS) represents a frequent cause of acute renal failure in children aged 7 months to 6 years. This pathology is characterized by microangiopathic hemolytic anemia, thrombocytopenia and acute renal injury and can easily be mistaken with Thrombotic Thrombocytopenic Purpura.

The highest incidence in Europe was noticed for HUS determined by serotype O157:H7 infection with Shiga-like-toxin-producing *Escherichia Coli*.

The purpose of this presentation is to emphasize the crucial role of early diagnosis and adequate treatment in the management of pediatric HUS.

METHOD AND MATERIALS

On March 23rd 2015, a 11 months old baby girl was urgently transferred to Marie Curie Pediatric Hospital in Bucharest from another clinic, presenting unfavorable clinical evolution after 2 days of admission for persisting diarrhea, bilious vomiting associated with fever and oliguria over the last 24 hours. The patient had been treated with Ceftriaxone, Ranitidine, Furosemid and fluid therapy.

Physiological and pathological antecedents mentioned at birth: Apgar score= 9 and in December 2014 an episode of acute Enterocolitis and Urinary tract infection, caused by *E. Coli* infection. At the moment of the admission at Marie Curie Hospital, the patient had no fever, but the clinical examination revealed pallor, dry lips, generalized edema, persistence of diarrhea, oliguria, BP=106/68 mmHg, tachycardia and $SatO_2$=96%.

Laboratory tests at this time revealed: severe anemia, signs of hemolysis (increased reticulocytes count), severe thrombocytopenia and progressive azotemia. Parenteral nutrition as well as peritoneal dialysis were started with Glucose, Enoxaparine, Ceftriaxone and Potassium Chloride.

RESULTS

An abdominal ultrasound revealed a hyperechogenic renal cortex. Fecal antigen tests for Adenovirus and Rotavirus infection were both negative. The fever and tachycardia remitted quickly after admission, but soon lab urine tests indicated acute onset of Nephrotic Syndrome. Peritoneal dialysis was performed for 17 days, afterwards the patient's renal function improved. Generalized edema diminished, but palpebral and plantar edema persisted a few more days.

CONCLUSIONS

Clinical features of acute Enteritis such as diarrhea, vomiting and fever may sometimes mask the onset of another multiocular injury. Thus, it is important to take into consideration the triad: microangiopathic hemolytic anemia, thrombocytopenia and acute renal failure as markers of HUS.

Although it can present itself as a mild pathology at the beginning, anuria, severe anemia and cardiac complications following electrolyte abnormalities may quickly develop.

The management of this condition is extremely complex, since a very large number of parameters must be kept under observation; avoiding dehydration, hypertension, metabolic acidosis and hyperkalemia are the main target points but a fine balance between fluid supply, nutritional support on one side and proper renal and hematologic functions on the other side are vital for any patient with HUS, regardless of the etiology.

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Increased Incidence of Tuberculosis among Systemic Lupus Erythematosus Patients

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BACKGROUND

Tuberculosis (TB) was declared by the World Health Organization (WHO) the most common infectious disease in the world. TB has a higher incidence among patients with systemic rheumatic diseases than in general population; in these patients, it frequently presents as extrapulmonary or disseminated disease. According to WHO surveillance reports, although steadily decreasing during the last years, the incidence of TB in Romania in 2005-2014 was by far the highest among all EU countries.

OBJECTIVES

To assess the characteristics and risk factors of active TB infection in a group of patients with systemic lupus erythematosus (SLE).

MATERIAL AND METHODS

Data of all SLE patients followed up in our clinic between 2005-2014 were retrospectively analyzed. Clinical and demographic characteristics and treatment before diagnosis of TB were recorded. The incidence of active TB infection was compared to data from the general population. Univariable logistic regression was used to assess the influence of various factors on the risk of developing TB.

RESULTS

During the 10-year interval, were evaluated in our clinic 400 SLE patients. We indentified 18 cases of active TB per 4291 patient-years (time of exposure, PY), accounting for an incidence of 419.5/100.000 PY, which is 4.43 times the incidence of TB in our region between 2005-2014. Ten of the 18 cases had extrapulmonary or disseminated TB. Two patients repeatedly had active TB infection. High dose glucocorticoids (hd-GC) and cyclophosphamide (CYC) treatment were significantly associated with TB: OR (95%CI) 9.6 (1.2-77.5), $p=0.03$ for hd-GC and 3.3 (1.2-9.1), $p=0.02$ for CYC. Fever was the most important red-flag for the diagnosis of TB, OR (95% CI) 73.1 (15.2-352.7), $p<0.001$. Other frequent manifestations were weight loss and cough. No association was found between TB and age or LES duration.

CONCLUSIONS

We found an increased incidence of active TB infection with a majority of extrapulmonary TB in a large group of Romanian SLE patients. Treatments with cyclophosphamide and high daily dose of glucocorticoids were important determinants for the increased risk of TB in SLE patients. These results suggest that in a country with high TB burden, TB screening and treatment of latent TB would be useful before initiation of immunosuppressive treatment.

Synthesis, Characterisation and Antimicrobial Activity of the Ligand Pyridoxal Isonicotinoyl Hydrazone and Corresponding Copper(II) Complexes as Potential Antibacterial Agents

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OBJECTIVES

One very important issues in medicine is the resistance of pathogenic microorganisms to the antibiotics used in current therapy.

In this paper we describe the synthesis, structural characterisation and the antimicrobial activity of the hydrazone type ligand obtained by condensation of pyridoxal and isonicotinohydrazide and five copper(II) complexes which could serve as alternative antibacterial agents.

MATERIALS AND METHODS

Pyridoxal hydrochloride (Sigma-Aldrich) and isonicotinohydrazide (Sigma-Aldrich) were used as purchased without any pre-synthesis purification step. The copper(II) salts $Cu(NO_3)2 \bullet 3H_20$, $CuSO_4 \bullet 5H_2O$, $Cu(CH_3COO)2 \bullet H_2O$, $CuCl2 \bullet 2H_2O$, Cu(acac)2 were supplied by Merck and used as such. The solvents were purified before synthesis by standard procedure.

The ligand and the corresponding five Cu(II) complexes have been characterized by different physico-chemical techniques as described below. The antibacterial effect of all complexes has been evaluated from qualitative and quantitative (standard dilutions method) perspective against Gram-positive and Gram-negative bacterial strains.

RESULTS

The formation of the ligand pyridoxal isonicotinoylhydrazone (HL) has been assessed based on FT-IR, ^{1}H and ^{13}C NMR spectroscopy and elemental analysis. The Cu(II) complexes [CuL(Cl)] (1), [CuL(NO3)] (2), [CuL(H2O)]OAc (3), [CuL2] (4), [CuL(OAcac)] (5) were synthesized by direct coordination of the ligand HL to the metal ion and characterized by different physico-chemical techniques, magnetic susceptibility and EPR, FT-IR, UV-VIS spectral methods.

The metal complexes were tested *in vitro* against four types of microorganisms: *Staphylococcus aureus* var. *Oxford ATCC 6538, Bacillus cereus ATCC 14579, Pseudomonas aeruginosa ATCC 9027, Escherichia coli W3110*.

CONCLUSION

The FT-IR and 1H and 13C NMR spectra show specific signals characteristic to the azomethine bond confirming the condensation of reagents with the formation of the desired hydrazone. The Cu (II) complexes stabilize different geometries due to the influence of the anions from the Cu(II) salts.

All five Cu (II) complexes exhibit better inhibitory effect against the tested microorganisms compared to the ligand. While for the free ligand the minimal inhibitory concentration (MIC) value is rather high (1024 μg/mL) the MIC for complexes is up to 16 times lower. This behavior is associated with the chelation effect generated by the metal ion.

Comparison of Virulence and Resistance Patterns in Chronic Wound Isolates

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OBJECTIVES

Chronic wounds represent an important burden on the healthcare system and have an important impact on the patient's quality of life. Bacterial wound isolates frequently express a biofilm phenotype, which predisposes to increased antimicrobial tolerance and resistance, as well as to the failure of standard therapeutic methods. In this study we aimed to describe the resistance and virulence phenotypes of the microorganisms isolated from hospitalized patients diagnosed with chronic skin wounds, as well as their capacity to form biofilms.

METHODS AND MATERIALS

We enrolled 39 patients in the study diagnosed with chronic skin wounds. We assessed the susceptibility patterns of the wound isolates to commonly recommended classes of antibiotics. We performed enzymatic tests for the expression of 8 soluble virulence factors (α and β haemolysins, lecithinase, lipase, caseinase, gelatinase, amylase, DN-ase, esculinase). We evaluated bacterial adherence to HeLa cells (adapted Cravioto's method) and the capacity to form biofilms (spectrophotometric absorbance of the adhered biomass on 96-well microtiter plates).

RESULTS AND CONCLUSIONS

From a total of 7 isolated microbial species, the most common were *Staphylococcus aureus* (32 strains) and *Pseudomonas aeruginosa* (4). Others belonged to the Enterobacteriaceae family. Polymicrobial infection was detected in 5 of the infected wounds. 11 strains of *Staphylococcus aureus* were methicillin resistant (MRSA). Low differences were found between MRSA and the sensitive strains, regarding their abilities to produce biofilms and to adhere to epithelial cells, while a higher expression of soluble virulence factors was noticed in the resistant strains. All *Pseudomonas aeruginosa* strains intensely formed biofilms. Enterobacteriaceae expressed less virulent phenotypes, a lower capacity to adhere to epithelial cells and to develop biofilms, but higher antimicrobial resistance.

All isolated strains proved the ability to organize in biofilms, leading to the conclusion that the development of a personalized treatment approach, by combining biofilm targetting therapeutic agents with traditional treatments, might contribute to faster healing and improved patient outcomes. Our data suggest an increased risk of nosocomial infections with antibiotic resistant, biofilm forming microorganisms.

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Encapsulating Peritoneal Sclerosis – a Rare but Major Complication of Peritoneal Dialysis Associated with Significant Morbidity and Mortality

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INTRODUCTION

Encapsulating peritoneal sclerosis is a pathological entity mainly associated with peritoneal dialysis (PD). It is considered to be the second major complication of PD after the infectious complications. The clinical syndrome is characterized by various degrees of intestinal obstruction due to thickening, sclerosis and calcification of peritoneum resulting in encapsulation and cocooning of the bowel. It is a rare, but potentially devastating complication associated with considerable morbidity and mortality.

MATERIALS AND METHODS

The cases of encapsulating peritoneal sclerosis (EPS) diagnosed in the Surgical Clinic of Cantacuzino Hospital during 2007 - 2014 were retrospectively reviewed. Over this interval, we identified 15 patients with EPS.

RESULTS

The EPS diagnostic has been established at the time of the surgical intervention addressed to other complication or pathology with two exceptions in which the diagnosis was suspected prior to surgical intervention. Also, in 2 of the 15 patients the diagnostic has been established after PD was discontinued. 12 of 15 patients had diabetes mellitus. A history of multiple peritonitis episodes was found in the majority of the patients. The surgical intervention consisted in extracting the dialysis catheter, washing and drainage of the peritoneal cavity in all patients, 8 of the patients requiring adhesiolysis for the release of the small bowel loops. Also the PD was interrupted and the patients were transferred to hemodialysis. There were 4 deaths (26.6%) one was after two months from the diagnosis.

CONCLUSIONS

An early diagnosis and the appropriate phase-specific treatment is of utmost importance in EPS. In advanced stages surgical intervention performed by a well-trained team could achieve good long term results.

Keywords: peritoneal dialysis, encapsulated peritoneal sclerosis

Bariatric Surgery - Key Issues Still Debated

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INTRODUCTION

Bariatric surgery, relatively new field of general surgery , is one of the best examples of the advantages of laparoscopic surgery, including in particular the way in which the surgical method was quickly accepted by patients due to reduced trauma and quick recovery.

OBJECTIVES

This paper analyzes the major surgical techniques for for obesity (gastric band, gastric sleeve, gastric bypass) performed in St. John Hospital Clinic of General Surgery by laparoscopic technique, for a period of approximately 10 years.

METHODS AND MATERIALS

We analyzed 244 cases of adjustable gastric banding, 1648 cases of gastric sleeve, 153 cases of gastric by-pass. We quantified, apart from mean age and BMI, specific instructions for each intervention and any other combination of simultaneous interventions. Necessary information were considered from medical records and surgery protocols.

RESULTS

The average age for gastric band was 37.6, for gastric sleeve was 42.07 and for gastric bypass was 40.5. Although indications for bariatric surgery (either gastric band, gastric sleeve, or bypass) are well know and apply for any type of bariatric surgery, we noticed that the average BMI for gastric band was 39.2 kg/m^2, for gastric sleeve 45,1 kg/m^2 and 47.2 kg/m^2 for bypass, which demonstrates that as long as we have a greater weight excess, the type of intervention that brings a greater weight loss is recommended.

Interventions for obesity were associated with cholecystectomy in 8 cases, 6 cases with hiatal hernia, abdominal hernias surgical treatment in 9 cases and in one case anexectomy.

CONCLUSIONS

There is a tendency to expand the indications for surgical approach to morbid obesity, lowering body mass index at 30 kg/m^2 and extending the age limit more than 65 years, the inclusion of non -insulin-dependent diabetes among indications.

Each technique of bariatric surgery is proper for a particular patient, so you have to know and to investigate well these cases. It is indicated to solve any additional comorbidities in the same surgical time.

Giant Basal Cell Carcinoma – a Result of Negligence and Tumor Growth

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OBJECTIVES

Basal cell carcinoma (BCC) accounts for two thirds of skin cancers. The tumor has its origin in the basal epidermal cells and hair follicles. BCC is a low grade malignant cutaneous tumor; the metastases occur in 0.1% of the cases, but it may produce the invasion of deep tissue. Giant BCC (GBCC) is defined as a tumor with a diameter larger than 5 cm. GBCC is an aggressive subtype of BCC and represents 0.5% of all BCC types. It is commonly located on the trunk and may be metastatic in 50% of the cases. We report a case of a GBCC in an old patient.

MATERIAL AND METHOD

A 73-year-old man, living in a rural area with low access to health care providers presented in our clinic with a tumoral lesion on the anterior trunk. The medical past history revealed that the tumor had appeared 15 years before and gradually increased. The patient had noticed a fluid with a fetid smell on the surface of the tumor two weeks before presentation. Then the patient decided to seek a medical consultation.

RESULTS

Initial examination revealed a tumor with 15 cm at its largest diameter. The tumor was elevated, well-defined, with irregular borders. There were ulcerated and hemorrhagic areas and a discharge of a purulent fluid on its surface. The tumor was located on the right part of the thorax, a non-sun exposed area. The patient was Fitzpatrick skin type 2. A biopsy was performed. The diagnosis of BCC was confirmed. An antibiotic treatment was initiated and the patient was referred to a plastic surgery clinic given the large size of the tumor. In most cases the treatment is based on surgery. GBCC is an aggressive BCC subtype and is much more likely to metastasize. There were no signs of metastases in our case. Subsequently the patient was lost to follow up.

CONCLUSIONS

One of the main risk factors for the development of GBCC is the neglect of the lesion. Our patient did not have access to medical care providers and he had a low socioeconomic status resulting in a delayed presentation to a doctor. Then the tumor increases gradually reaching a very large dimension.

Unusual Presentation of Keratoacanthoma Coexisting with Squamous Cell Carcinoma in a Patient with Multiple Actinic Keratoses

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INTRODUCTION

Keratoacanthoma (KA) is a benign cutaneous tumor, occurring commonly in elders, usually on the sun exposed areas of the face and hands. KA is a rapidly growing tumour, bearing a high tendency to regress spontaneously; however, sometimes it may mimic an invasive squamous cell carcinoma (SCC), to which it may be clinically misdiagnosed.

MATERIAL AND METHOD

We report the case of a 82 years-old female patient admitted to our clinic for the occurrence of a tumoral lesion situated on the forehead that appeared 3 months beforehand. The patient had a history of actinic keratosis, the first of which appeared 20 years earlier.

RESULTS

The physical examination revealed a well-defined tumoral lesion with central keratin plug and several peripheral telangiectasias, located on the frontal region, 1.5 cm in diameter. The rapid growth of the tumour and the clinical appearance recommended the diagnosis to KA, however the presence of the actinic keratoses raised the suspicion of SCC. Tumour excision and biopsy were performed. Histopathological examination revealed a cutaneous tumour with a central crater made of orto- and parakeratin, epithelial cells with nuclear pleomorphism and atypical mitoses; small tumoral islands of squamous cells with marked nucleo-cytoplasmic pleomorphism were noticed in the dermis, leading to the diagnosis of KA with areas of transformation into invasive SCC. The patient underwent radiotherapy, with favourable evolution.

CONCLUSIONS

Sometimes the clinical diagnosis of cutaneous tumours proves to be challenging; the histological examination plays a paramount importance in differentiating KA and SCC, which may sometimes coexist.

Persistent Left Superior Vena Cava in an Old Patient

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INTRODUCTION

Persistent left superior vena cava is a congenital vascular anomaly. It can be isolated or associated with absence of the innominate vein or, rarely with the absence of the right superior vena cava. It is usually asymptomatic and is often an incidental finding.

CASE REPORT

A 77 year patient presented in our department with dyspnoea and reduced effort tolerance. Abnormal laboratory tests included thrombocytopenia, anemia and elevated INR and BNP.

Physical examination revealed tachycardia, raised blood pressure, grade II/VI murmur at the left lower sternal border, and grad III/VI holosystolic ejectional murmur in the aortic area. The patient also presented signs of systemic congestion: jugular turgescence, and hepatomegaly

2-D transthoracic echocardiography described normal left ventricle and diameter ejection fraction, grade II diastolic dysfunction, elevated left sided filling pressures, dilated left atrium and right cavities. We noticed moderate tricuspid regurgitation and pulmonary hypertension, moderate aortic stenosis and mild mitral regurgitation. We also noticed a dilated coronary sinus and dilatation of pulmonary artery.

CONCLUSIONS

The dilated coronary sinus raises the suspicion of an anomalous venous drainage, so the patient was evaluated with an angio CT scan that showed a superior vena cava situated on the left sided, that drains into the right atrium via coronary sinus with the absence of the right superior vena cava. Although this condition may be associated with an increased incidence of congenital heart disease, arrhythmias and conduction disturbances, it doesn't justify the congestive signs nor the symptoms and the importance of this finding should be interpreted with caution.

Borderline Ovarian Tumor: the Importance of the Diagnosis – Case Report

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INTRODUCTION

Borderline ovarian tumors have been diagnosed since 1929. It is known that unlike ovarian cancer, their evolution is favorable. Multiple studies emphasize the importance of periodically reevaluation of those patients diagnosed with borderline ovarian tumors due to their risk of recurrence.

CASE REPORT

We report the case of 24 years old patient who presented at the emergency room for acute lower abdominal pain. The ultrasound revealed left ovarian tumor. A laparotomy vas performed. The ovarian tumor vas about 22/20 cm, with a cystic character, a well-defined contour, thin surface with no vegetations twisted at 3600. Left anexectomy was performed due to intraoperative aspects. The patient had a favorable outcome. The histopathological examination identified a borderline ovarian tumor. The patient came back for a consult after 6 months when she was diagnosed with 9 weeks pregnancy, without continuing the further correct prenatal care and evaluation for borderline tumor. The particularity of this case is that borderline ovarian tumor was identified in a young, fertile woman with risk of recurrence, but she ignored the importance of follow-up.

CONCLUSIONS

Any young woman with an acute abdominal pain, suggestive for ovarian pathology, can be suspected of borderline ovarian tumors. Further check-ups are necessary due to the risk of recurrence of this clinical entity.

Geno Type Mtbdrplus, a Rapid Detection Method for Rifampicin and Isoniazid Resistance from Clinical Samples

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BACKGROUND

Multidrug-resistant tuberculosis (MDR-TB) cases are increasingly more frequent in recent years. Initiating adequate therapy in the shortest time possible is an urgent necessity.

OBJECTIVE

To analyze the resistance profile of isolated Mycobacterium tuberculosis strains through molecular methods.

MATERIALS AND METHODS

This laboratory study was performed in Institute for Pulmonary Medicine MARIUS NASTA, Bucharest. We performed direct analysis on consequent, unique, acid-fast bacilli positive (AFB) smear samples that were submitted to the lab. A commercial system that allows the detection of mutations responsible for the appearance of resistance to rifampicin (RIF) and/or isoniazid (INH), the GenoType MTBDRplus (Hain Lifescience, Germany) was used.

RESULTS

A total of 646 samples, microscopy positive for acid-fast bacilli (AFB) were recorded. Of these, 592 were valid for genetic analysis.

478 samples (approximately 81%) were RIF and HIN susceptible and 114 samples were resistant. For the resistant samples, a number of 68 samples (approximately 11% out of the total 592 samples, and 60% out of the resistant samples) were resistant for both RIF and HIN, categorizing them as MDR-TB.

CONCLUSION

Equipping the bacteriology laboratories involved in tuberculous diagnosis with rapid nitrocellulose based detection systems permits accurate and fast detection of MDR-TB. While drug-mono-resistance to first line antituberculosis drugs is considered to be a rare event, our study shows that 40% of resistant samples were, in fact, mono-resistant to either HIN or RIF. Eleven percent of the studied strains met the criteria for MDR-TB, underpinning the necessity for rapid diagnostic tests to improve morbidity and mortality.

The Incidence and Antibiotic Susceptibility Profile of ESKAPE Pathogens in Respiratory Samples Collected in a Tertiary Center for Pulmonary Medicine: a Retrospective Analysis for 2013

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BACKGROUND

ESKAPE pathogens (*Enterococcus faecalis, Staphylococcus aureus, Klebsiella pneumoaniae, Acinetobacter baumanii, Pseudomonas aeruginosa, Enterobacter* spp.) have been proposed as frequently encountered microbes that manage to often elude standard antimicrobial therapy.

OBJECTIVES

To characterize the incidence and susceptibility profile of ESKAPE pathogens in respiratory samples collected in Institute for Pulmonary Medicine MARIUS NASTA, in Bucharest, Romania.

MATERIALS AND METHODS

We undertook a retrospective analysis of the samples sent for microbiological analysis to the Bacteriology Laboratory of Institute for Pulmonary Medicine MARIUS NASTA. The analysis was done on samples taken from inpatients, at least 18 years old, hospitalized in one of the services of the Institute. Samples sent to the laboratory and analyzed consisted of respiratory samples (sputum, bronchial aspirates, bronchio-alveolar lavage), pleural exudates and hemocultures. The antibiotic susceptibility profile was evaluated in accordance to the Clinical and Laboratory Standards Institute guidelines.

RESULTS

We identified 18 isolates of *Enterococcus* spp. 198 isolates of *Staphylococcus aureus,* out of which 132 (67% were Methicillin Resistant), 110 K. pneumoniae isolates, 150 A. baumanii isolates, 222 P. aeruginosa isolates, 2 *Enterobacter* spp. A detailed report of the resistance profiles is included. These pathogens were more likely to be isolated from patients with underlying comorbidities hospitalized in the ICU.

CONCLUSIONS

Knowledge of the local bacterial resistance is vital for empiric therapy of severe in patients. These pathogens were among the most resistant of the pathogens isolated. Antibiotic stewardship programs are required to optimize antimicrobial therapy and stop the overuse in the hospital setting. Polymyxins and Carbapenems are the empiric drugs of choice in such infections, and should be used until definitive antimicrobial guidance.

Can Functional Dystocia Be Predicted? The Myometrial Relative Expression of ERAP2 vs LILRA3

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OBJECTIVE

This study was undertaken in order to determine if functional dystocia can be predicted according to the myometrial relative expression of endoplasmic reticulum aminopeptidase 2 (ERAP2) compared to leukocyte immunoglobulin-like receptor subfamily A member 3 precursor (LILRA3).

MATERIAL AND METHODS

We analyzed myometrial biopsies obtained from the lower segment of 40 patients who underwent Cesarean section. Two groups were formed. In group A (n=20) we enrolled patients diagnosed with functional dystocia, while in group B (n=20) patients with other indications for Cesarean section, who had demonstrated efficient uterine contractions during the first stage of labor. Total RNA was extracted from biopsies and tested qualitatively using small volume spectrometry. We determined the relative abundance of mRNA for the ERAP2 and LILRA3 by qPCR. Data analysis was conducted using the software of real-time PCR system by comparing the levels of ERAP2 and LILRA3 to genes with constant expression. Subsequently we analyzed and compared the levels of ERAP2 and LILRA3 from patients pertaining to group A.

RESULTS

ERAP2 and LILRA3 genes were down-regulated in group A, compared to group B. ERAP2 gene is constantly and severely down regulated (n=18) compared to LILRA3 (n=10).

CONCLUSIONS

Genes ERAP2 and LILRA3 are down-regulated in patients with functional dystocia. Functional dystocia may by predicted by determining the serum levels of the protein encoded by ERAP2 gene compared to LILRA3 due to its constant down-regulation in these patients.

Keywords: functional dystocia, ERAP2, LILRA3, down regulation

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Trans-Abdominal Echography at the Onset of Labor Predicts more Rapidly Cephalopelvic Disproportion than Trans-Perineal Sonography

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OBJECTIVE

This study was undertaken in order to determine what type of ultrasonographic method (transabdominal echography or trans-perineal sonography) predicts more rapidly cephalopelvic disproportion.

MATERIAL AND METHODS

We retrospectively evaluated a group of 50 patients diagnosed with cephalopelvic disproportion admitted in the Department of Obstetrics and Gynecology of the University Emergency Hospital Bucharest. All the patients included in the study were primiparous, with singleton pregnancy, breech presentation; at the onset of labor (cervical dilatation </= 4cm) they were evaluated by echography in order to determine the risk of cephalopelvic disproportion. Two groups were formed. In group A we included 25 patients who were evaluated by trans-abdominal echography in order to determine the biparietal diameter and head circumference. In group P we included 25 patients, who were examined by trans-perineal sonography in order to determine the cranial-perineal distance. We analyzed and compared between the two groups the time elapsed from the ultrasonographic examination and the decision of extracting the fetus by Cesarean section for cephalo-pelvic disproportion.

RESULTS

For patients pertaining to group A, the decision of extracting the fetus by Cesarean section was taken in less than 2 hours in 19 cases, between 2 and 6 hours in 5 cases and in more than 6 hours in one case. For patients enrolled in group P, the decision of extracting the fetus by Cesarean section was taken in less than 2 hours in 2 cases, between 2 and 6 hours in 16 cases and in more than 6 hours in 17 cases.

CONCLUSION

Trans-abdominal echography at the onset of labor predicts more rapidly cephalopelvic disproportion than trans-perineal sonography.

Keywords: cephalopelvic disproportion, transabdominal echography, trans-perineal sonography

Acknowledgement: This paper is supported by the Sectorial Operational Programme Human Resources Development (SOP HRD), financed from the European Social Fund and by the Romanian Government under the contract number POSDRU/159/1.5/S/137390.

Prevalence of Hyponatremia in Elderly Patients Admitted in an Acute Internal Medicine Department vs Chronic Geriatric Care Unit: a Double-Center Study

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INTRODUCTION

Hyponatremia, defined as a serum sodium concentration <135 mmol/l, is the most common electrolyte abnormality in the elderly. Data on the prevalence of hyponatremia in elderly hospitalized patients are lacking. Recent evidence highlights that even mild, chronic hyponatremia can lead to cognitive impairment, falls and even fractures in association with bone demineralization.

BACKGROUND AND OBJECTIVE

In order to analyze and compare the prevalence of hyponatremia in hospitalized elderly patients, we performed a retrospective study in an acute internal medicine clinic at SF. PANTELIMON Clinical Emergency Hospital comparing the results with our department of geriatric care. Our aims were to determine the prevalence of hyponatremia at hospital admission in different departments (geriatric wards vs. acute internal medicine clinic) for elderly population.

METHODS

We performed a retrospective cohort analysis of 2440 adults aged ≥65 years with hyponatremia, from both hospitals, equally selected (n=1220 form each department). Prevalence of hyponatremia and its relationship with gender, age and diagnosis in acute vs. chronic medical admissions were investigated. Hyponatraemia was defined as a serum sodium level <135 mmol/l. Hyponatraemia was subdivided into mild (serum sodium 134–130 mmol/l), moderate (129-125 mmol/l), and severe (<125 mmol/l).

RESULTS

The mean age of the patients was 77,49 ± 7,75(SD) years. The prevalence of hyponatriemia was 34,43% (420/1220) for SF. PANTELIMON Clinical Emergency Hospital comparing with a prevalence of 2,21% (27/1220) at National Institute of Gerontology and Geriatrics ANA ASLAN. Prevalence of hyponatremia was significantly higher in females in both departments (52,38%, $p<0.001$) and increased with age. Hyponatremia was more frequent in patients with heart failure, hypertension, diabetes, coronary artery disease, acute respiratory failure, chronic obstructive pulmonary disease, cirrhosis and cancer and less common with those with no comorbidities ($p<0.001$).

CONCLUSION

Hyponatremia is highly prevalent in elderly patients admitted in an emergency hospital (34,43%) comparing with chronic geriatric wards (2,21%). Increasing age is a strong inde-

pendent risk factor for hyponatremia. Gender is not an important risk factor for disturbances of serum Na concentration, although prevalence was higher for female patients.

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Osteocalcin and Crosslaps in Patients with Type 2 Diabetes and Newly Diagnosed Osteoporosis

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AIMS

This study was designed to evaluate the differences in bone metabolism between diabetic and non-diabetic patients with newly diagnosed osteoporosis using biochemical bone turnover markers and to determine whether type 2 diabetes was associated with a higher bone mineral density.

MATERIAL AND METHODS

A longitudinal study that evaluated 80 women with newly diagnosed type I osteoporosis: 40 women with type 2 diabetes (diabetic group) and 40 women without diabetes (non-diabetic group). The analyzed variables were osteocalcin and alkaline phosphatase (bone formation markers) and crosslaps (bone resorption marker) for bone metabolism markers evaluation, 25-hydroxivitamin D (25(OH)D), bone mineral density (BMD) at lumbar and hip level, magnesium, calcium, phosphorus and fasting glucose.

RESULTS

Mean age of women included in the study was 64.2±8.8 years. Serum levels of osteocalcin in women with type 2 diabetes were 19.74±11.08 ng/ml and serum levels of crosslaps were 0.303±0.16 ng/ml. In control group the levels of osteocalcin were 31.47±14.68 ng/ml and crosslaps 0.565±0.28 ng/ml. Among these parameters it was a statistically significant difference ($p<0.001$). Although BMD both at the lumbar level (-3.02±0.52 vs. -3.23±0.72) and at the hip level (-2.27±0.80 vs. -2.38±0.66) was higher in diabetic group compared with non-diabetic group, there was no statistically significant difference between the two groups. In diabetic group, 25(OH)D was lower in the non-diabetic women (17.3±9.16 vs 18.7±8.62 ng/ml) but without statistical significance. Serum magnesium levels were significantly lower ($p<0.001$) in the diabetic group compared with non-diabetic group (1.87±0.22 vs 2.07±0.19 mg/dl). Serum glucose level was significantly higher ($p<0.001$) in the diabetic group than non-diabetic group (135.94±91.16 mg/dl).

CONCLUSION

Women with type 2 diabetes showed significantly reduced levels of osteocalcin and serum crosslaps compared with non-diabetic women. Our results confirm previous studies demonstrating low bone turnover in patients with type 2 diabetes and bone mineral density higher than in non-diabetic patients. These things should be taken into account when we talk about the evaluation of patients with type 2 diabetes.

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Cyclosporin A and HCV Viral Load

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WHO estimates that approximately 160 million people are chronically infected with hepatitis C virus (HVC) in 2014.

Cyclosporine is used to prevent and treat graft-versus-host disease in bone-marrow transplantation and to prevent rejection of kidney, heart, and liver transplants.

Cyclosporine binds specifically to a cytosolic protein - cyclophilin (CyPs), a group of proteins belonging to a family of peptidyl-propyl-isomerase, which facilitate protein folding of lymphocytes, especially of T cells.

In contrast to other immunosuppressants, cyclosporine does not increase, but rather may decrease the incidence of some viral infection.

In 2003, Watashi K et al, aiming to find molecules with anti-HVC potential, examined the effects of Cyclosporine A, on HCV replication, using a HCV subgenomic replicon cell culture system. They were first to report the Cyclosporine A suppressive effect on the HCV replicon at RNA level and HCV protein expression, both in cell culture and in human hepatocytes infected with HCV.

Antiviral effects were also seen in case of NIM8111 and Debio-025, non-immunosuppressive Cyclosporine derivatives.

In vitro studies with CsA non-immunosupressant analogues showed a close correlation between the inhibition of viral replication and CyPs binding, which made CyPs a potential target for antiviral compounds.

The antiviral effect of CsA and its derivatives was linked to its ability to interact with CyPs, which in turn have been recognized as essential cellular cofactors of HCV. The most common CyPs are CyPA and CyPB, and both, but mainly CyPB, have been shown to play a role in lowering viral replication. CyPB associates and strongly interacts with NS5B, a non-structural protein coding for viral RNA-dependent RNA polymerase. The association with CyPB promotes the NS5B binding to RNA. CsA binds specifically to CyPB, which blocks its association with NS5B, thus preventing NS5B interaction with RNA, and slows down the viral replication.

The viral replication is dependent on cyclophilins, a vulnerability the cyclophilin inhibitors might take advantage of.

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Hepatitis Viruses – Factors that Influence Renal Graft and Patients Survival

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INTRODUCTION

Hepatitis B and C viruses infections represent a major health problem worldwide, especially in transplanted patients, not only because the high prevalence of the related co-morbidities, but also because the immunosuppressive therapy favors virus replication.

OBJECTIVES

In this prospective study we aimed a total of 437 renal transplanted patients from 2010 until 2014.

We tried to identify risk factors that contribute to acute or chronic renal graft rejection and the role of these factors regarding the survival of the transplanted patients.

MATERIALS AND METHODS

Transplanted patients with known primary renal disease were divided into two groups. The study group is composed of renal transplanted patients who were infected with hepatitis viruses (HBV, HCV or HBV + HCV) and the control group is composed of renal transplanted patients without infection with hepatitis viruses. Viremias (RT-PCR), viral genotyping (INNO-LiPA), immune status, concentration of immunosuppressants (LC-MS/MS), cytotoxic antibodies (Luminex), liver damage (AST, ALT, GGT), rejection rate and survival were the parameters studied along post-transplant follow-up.

RESULTS

The mean age of transplanted patients was found to be 37 years. Of the renal transplanted patients, 16% were identified with HBV chronic infection, 10% with HCV infection and 3% were infected with both HBV and HCV. 11% of patients suffered rejection of the renal allograft and 3% died as a result of graft rejection. Statistical analysis showed that HBV infection and HBV&HCV co-infection significantly influence the achievement of the endpoint which is formed by graft rejection followed by death, unlike HCV infection and no infection with hepatitis viruses.

CONCLUSIONS

This study demonstrates that the renal graft rejection followed by death of the patients is influenced by HBV infection. HCV infection did not influence significantly the graft rejection and the survival rate of patients. Knowing the effect of certain immunosuppressants such as cyclosporine on HCV replication, we can speculate that HCV viral load might decrease due to post-transplant therapy, making a better evolution both for the renal graft and for the patients.

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Comparative Study Design on Osteosynthesis with Plates and Screws versus Centromedullar Osteosynthesis in Order to Reduce Femur Fractures in Lab Rats

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INTRODUCTION

There are many ways of osteosynthesis in bone fractures. The periosteum plays an important role in callus formation at the site of a bone fracture. Nowadays there are many published clinical studies that compare different methods of osteosynthesis, but few showed the histopathological aspects of callus formation and in addition to that, how the periosteum stripping interferes.

MATERIALS AND METHODS

We plan to use 30 Brown Norway lab rats with similar age and weight (400 g). The femur will be broken on both limbs in the same way, resulting identical fractures. After that, we will use plates and screws as an osteosynthesis method for one limb and centromedular osteosynthesis using K-wires for the other limb. The osteosynthesis material will be removed after three weeks. The lab rats will be assesed clinicaly on daily basis, radiological every 2 weeks, histopathological and biomechanical after the animal being euthanized (at 1 months). It will be noted the quality of the callus in terms of functional, radiological, histopahological and biomechanical aspects in both methods.

RESULTS

We will make observations in order to see if the lab rats will use for support the limb that had osteosynthesis using plates and screws in two or three days after surgery, if the callus will be superior in terms of histopathological aspects and also if the results of the bending test will be better for this method of osteosynthesis compared to centromedular fixation using K-wires.

CONCLUSION

We intend to demonstrate that osteosynthesis using plates and screws is superior to the centromedular fixation (histopathological proof). The experimental study will be the baseline of a clinical study in which we will compare two methods of osteosynthesis in order to reduce similar metacarpal fractures, proving that the use of osteosynthesis with plates and screws will have better clinical and radiological results.

Keywords: osteosynthesis, periosteum, callus, histopathology

Nonspecific Interstitial Pneumonia (NSIP) and Bronchiolitis Obliterans Organizing Pneumonia (BOOP) – Two Sides of the Same Coin

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INTRODUCTION

The diagnosis of interstitial lung disease is frequently delayed because clinical clues are neglected and respiratory symptoms are ascribed to other pulmonary disorder. Furthermore, histological organizing pneumonia pattern frequently coexists with, or is superimposed on, other interstitial pneumonitis.

CASE PRESENTATION

A 58 year old woman, previously healthy, non-smoking, with occupational exposures, had presented 3 months ago exertional dyspnea, dry cough, fever and malaise. Auscultator crackles, diffuse bilateral infiltrates with "polymorph" aspect from apex to lower were wrong interpreted as bronchopneumonia. Therefore the patient received repeated courses of antibiotics. Pulmonary tests: ventilator restrictive pattern with moderate gas transfer deficit and severe hypoxemia. Bronchoscopy and broncho-alveolar lavage have suspected BOOP diagnosis. In order to exclude other diagnosis we performed left surgical thoracotomy that allows biopsy of the lingula.

Macroscopically: a rigid yellowish white lung fragment, 45/35/8 mm size.

Microscopically: buds of granulation tissue, extend into the bronchioles and obstruct the lumen, associated with interstitial inflammation. Foci of organizing pneumonia (intralumenal fibroblast proliferation - Masson bodies) specific of BOOP alternating with architectural distortion (diffuse expansion of alveolar septa by a cellular infiltrate of lymphocytes) pathognomonic for NSIP.

DISCUSSIONS

This case poses the question: Is this morphopathological pattern a consequence of occupational exposure history or repeated antibiotics treatment?

CONCLUSIONS

Our case is a contribution towards the limited amount of data published to date about this entity, which is reported very infrequently. Nonetheless the distinction is somewhat arbitrary and there are undoubtedly cases diagnosed as NSIP that represent poorly sampled cases of BOOP.

Long Term Outcome and Quality of Life after Inguinal Hernia Repair: Open versus Minimally Invasive Approach

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INTRODUCTION

The current evidence support the idea that, in the short term, the minimally invasive approach of inguinal hernia is associated with a faster recovery, faster return to work, and less postoperative pain.

AIMS

The aim of this study is to compare the long term quality of life after inguinal hernia repair – open versus laparoscopic approach.

METHOD

30 patients who underwent laparoscopic inguinal hernia repair (TAPP or TEP) between Nov 2011 – December 2014 were compared with 30 patients with open inguinal hernia repair (Lichtenstein technique). The control group was matched regarding age, sex, BMI, and Nyhus hernia classification. All patients were evaluated with a generic score (SF 36), and two specific scales (EuraHS-QoL score and Carolinas Comfort Scale) at a minimum of 12 months after the surgical procedure.

RESULTS

The follow up of patients was 12-36 months. The reccurence was seen in 2 cases from LG and none after OG ($p>0.05$). Inguinal sensibility alterations were more frequent after open approach (18% versus 3%, $p>0.05$). For all the quality of life scores there were no statistical differences between the two groups, on the long term evaluation.

CONCLUSIONS

Health related quality of life after laparoscopic hernia repair seems to be equivalent on the long term with that of the open approach. Taking into account the proven benefits on the short time after surgery, the laparoscopic approach may be beneficial in experienced hands. Acknowledgement: This paper is supported by the Sectorial Operational Programme Human Resources Development (SOP HTD), financed from the European Social Fund and by the Romanian Government under the contract number POSDRU/159/1.5/S/137390. All authors have equally contributed to this study.

Keywords: inguinal hernia, laparoscopic approach, quality of life.

Quality of Life after Achalasia of the Cardia Management: Minimally Invasive Heller Esocardiomiotomy versus Endoscopic Approach

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INTRODUCTION

Achalasia of the cardia represents a morbid disease, with important pshysical and psychologycal impairement for these patients. Facing a symptomatic and not an etiopathogenic treatment, the patients' quality of life represents the cornerstone of the therapeutic plan.

AIMS

The aim of this study is to compare the long term quality of life after achalasia of the cardia treatment, laparoscopic versus endoscopic approach.

METHOD

Patients with achalasia of the cardia addmitted between Nov 2011 – December 2014 in Emergency Hospital of Bucharest, Romania. All patients were evaluated with a generic score (SF 36), and one specific scale (Achalasia Disease Specific Quality of Life).

RESULTS

There were 6 cases of laparoscopic Heller esocardiomiotomy (LG) and 11 cases of endoscopic dilatation (EG). The mean number of inhospital admissions was 1.3 for LG and 2.8 for EG (p=ns). According to Clavien-Dindo scale there were 2 grade I and 1 grade 2 postoperative complications for LG and none for EG. There was no mortality. There was a trend for a lower quality of life for EG but without statistical significance (p=ns).

CONCLUSIONS

Laparoscopic esocardiomyotomy offers superior and longer quality of life improvements for patients with achalasia of the cardia.

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Keywords: achalasia of the cardia, laparoscopy, endoscopy, quality of life.

Quality of Sleep Influencing Mood and Quality of Life in Patients with Multiple Sclerosis

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BACKGROUND

Sleep disorders are conditions that prevent a person from getting restful sleep and cause daytime sleepiness. The inability to fall asleep or to stay asleep, (insomnia), is the most common sleep disorder.

Sleep disorders occurring in patients with multiple sclerosis (MS) are highly prevalent and result probably from increasing dysfunction, disorders of mood and emotion, localization of lesions in the central nervous system and specific therapy.

AIMS

To evaluate the quality of sleep in patients with MS and the link between the quality of sleep and and mood and emotion.

MATERIAL AND METHODS

We studied 24 patients with MS; mean age 37.13 years, mean duration of disease 8.4 years; mean EDSS 2.5±2points. The patients completed a sleep disorder questionnaire and were scored on the Epworth Sleepiness Scale (ESS), Beck Depression Inventory (BDI), Athens Insomnia Scale and Hospital Anxiety and Depression Scale (HADS).

RESULTS

In the examined group, 11 patients (45.83%) declared sleep disorders. Excessive daytime sleepiness was recognized in 2 patients (8.33%) and insomnia in 6 patients (25%). The studied patients did not complain of sleep disturbances before the onset of MS. There was no correlation between the sleep disorders and age, sex, education or specific treatment; anxiety and depression were correlated with insomnia, change of mood but not with excessive daytime sleepiness.

CONCLUSIONS

Sleep disorders that occur in patients with MS can exacerbate fatigue independently from age, sex, duration of the disease, or treatment. They are related to anxiety and depression as well as to EDSS score and change of mood.

The Impact on the Quality of Life and the Emotional Disability in Osteoarthritis

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BACKGROUND

WHO declared the first decade of the third millennium, 2001-2010 as the Bone and Joint Decade – aiming for a better understanding and prevention of osteoarticular diseases. That allowed osteoarthritis (OA) regain general attention as the most prevalent joint disease.

Osteoarthritis is diagnosed by radiological observation and presence of joint pain - most often located in the hip, knee, spine, hand, foot and shoulder.

With pain as the most significant symptom, osteoarthritis proves debilitating to patients, not only physically, but also emotionally, as constant pain and limitation of professional activity often lead to anxiety and depression – thus diminishing the general quality of life of OA patients.

The evaluation of costs with OA treatment demonstrates the impact this disease has upon society (on public health systems, on patients, etc.).

Purpose and objectives: the identification of a relationship between osteoarthritis and emotional disabilities (depression or anxiety) and quality of life score.

MATERIAL AND METHODS

To evaluate the quality of life of patients with OA by measuring the physical and emotional effects and disability caused by the disease. We used the SF-36 questionnaire which measures the quality of life through eight emotional and physical domains.

This questionnaire is useful for the individual assessment and for the health state of the patients, as well as for the research and monitoring of this disease.

One of the questions of this questionnaire is related to the manner in which the pain endured by the patients who suffered from OA reduces the period of time spent working or doing other activities, as a result of some emotional problems such as depression or anxiety.

This study is of prospective type and includes 91 cases with OA. The lot comprises 68 women (74.72%) and 23 men (25.27%) with OA.

We ascertained that the majority of the lot's patients were overweight or obese degree one, as obesity represents a risk factor in osteoarthritis.

RESULTS

In this lot, 56 (61.53%) subjects presented emotional disabilities (depression and anxiety).

The percentage was higher in women - 42 (75%) from the total number of patients suffering from OA and also from emotional disabilities. In this lot, the patients had an average age of 56.12 years.

CONCLUSIONS

The analyses dedicated to the quality of life are extremely useful for the medical practice, for assessing the physical, social or psychic effects of illnesses and of medical treatments.

Evolving the most effective treatments, early diagnosis and preventing osteoarthritis represent significant steps in order to reduce the clinical and economic effects that this disease causes all over the world.

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Tooth or Gingiva? Selecting the Proper Oral Stem Cells for a Personalized Regenerative Treatment

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AIM

The objective of the study was to assess in vitro the variances in osteogenic potential of stem cells from dental pulp and gingiva.

MATERIALS AND METHODS

Primary stem cells cultures (human dental pulp stem cells – DPSC, and gingival fibroblasts – GF) have been expanded from early passages, using mesenchymal stem cells medium (αMEM with FBS, antibiotics and ascorbic acid). Upon reaching 75-80% confluence, cells were detached using trypsin and seeded in a 12 well plate at a density of 5000 cells/cm2, for osteogenic differentiation (StemPro, Gibco). After five weeks, the formation of a calcium matrix was demonstrated using Alizarin Red (AR) stain. Images were captured under a Nikon TS-100 Microscope with a Digital Sight unit, and processed using Magnification software.

RESULTS

The proliferation rate of DPSC was higher than GF (50% vs. 30% confluence after one week). Thus, critical passaging confluence was achieved earlier by DPSC (day 13) compared to GF (day 16). In the unstained images, calcium deposits exhibited different patterns for the two analyzed stem cell types: scarce and granular pattern in the GF culture, compared to more frequent, but irregular in DPSC. AR stain revealed similar overall average intensities (0.35 ± 0.04 in DPSC vs. 0.36 ± 0.06 in GF), but dense calcium nodules were mostly present in DPSC. All controls were negative for calcium presence.

CONCLUSION

In this study, we compared the behaviour of DPSC and GF primary cultures in normal and osteoinductive growth conditions. Both cell types exhibited plastic adherent properties and the capacity to differentiate into calcium producing cells, even if in different manners. Knowing the differences in their osteogenic potential could conduce to puzzle out the quandary of inducing a desired modulated osteogenic response towards a certain differentiation pattern, by using a specific stem cell type in distinct oral surgery procedures (i.e. bone augmentation/soft tissue healing).

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The Management of a Dieulafoy Bleeding Lesion in a Patient with Anticoagulant and Antiplatelet Medication

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INTRODUCTION

Dieulafoy's lesion is an uncommon cause of gastrointestinal bleeding in which significant and often recurrent haemorrhage occurs from a pinpoint non-ulcerated arterial lesion, usually in the gastric area. Extragastric location of the lesion represents an extremely rare vascular anomaly that can be potentially life-threatening by its size and obscure localization. We report a gastrointestinal haemorrhage secondary to a Dieulafoy lesion in the duodenum III in a patient with chronic anticoagulant and antiplatelet treatment.

METHODS

A 66-year-old man with a history of aortic valve prosthesis (2009), coronary artery by-pass (2009), post Percutaneous Transluminal Coronary Angioplasty status with 2 stents placed on the right coronary (2014), atrial fibrillation and chronic antiplatelet (Clopidogrel) and oral anticoagulant (Acenocumarol) treatment was transferred to the Gastroenterology Department of the Emergency Hospital of Bucharest with 3 weeks history of melena. The first upper gastrointestinal (UGI) endoscopy showed an oozing hemorrhage (Forrest Ib) in the duodenum III and diluted Epinephrine was injected perilesional. He continued having melenic stool and the UGI endoscopy with hemostasis was performed 2 more times. Four days after the admission, the procedure was repeated using frontal-view endoscope and duodenoscope, finding the same punctiform hemorrhage source in the duodenum III. After a close examination, we concluded that a vessel is visible in the mucosa. This findings are highly suggestive for the diagnosis of Dieulafoy lesion in the duodenum III.

RESULTS

The aim of therapeutic endoscopy in this case was to stop any ongoing bleeding and prevent rebleeding, so it was performed epinephrine injection therapy in order to promote the initial hemostasis and to slow down the blood flow and allow a better visualization. The additional endoscopic treatment included a more durable technique as HemoClip placement and use of the bipolar electrocoagulation GOLD Probe. At the end of the procedure, the bleeding stopped; the evolution of the patient was favorable with the remission of the melenic stool. Due to the efficient hemostasis and taking into consideration the cardiovascular risk of the patient, the antiplatelet and anticoagulant treatment (Sintrom) was restablished under the monitorization of the INR value.

CONCLUSIONS

Dieulafoy's lesion is a rare source of gastrointestinal bleeding that may occur at any site in the GI tract and may be difficult to detect by endoscopy like in this case. Anticoagulant and antiplatelet chronic therapy may represent risk factors for upper gastrointestinal bleeding from Dieulafoy lesion.

Synthesis, Physicochemical and Pharmacological Characterization of New N-(2-Dialkylaminoethyl) Benzanilides

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OBJECTIVES

The objective of this study was the synthesis, physicochemical characterization and screening of pharmacological action on the central nervous system of the new molecules from N-(2-dialkylaminoethyl)benzanilides class, potential atypical antipsychotic agents with affinity for dopamine D2 receptors.

METHODS AND MATERIALS

The compounds resulting from a 3-step synthesis, the final compounds, obtained as hydrochlorides, are characterized by their physical and spectral (IR, NMR) properties.

Determination of acute toxicity was carried out by determining the LD50 and for the antipsychotic action research, the behavioral tests were used (perforated plate test and the actinometry test) using sulpiride (25 mg / kg) as a control activity. All procedures were performed in compliance with EU Directive 2010/63/. The results were considered statistically significant for the $p < 0.05$ values.

RESULTS

We synthesized and analyzed 4 new N-(2-dialkylaminoethyl) benzanilides (hydrochloride), which were characterized from a physico-chemical and spectral point of view, putting into evidence the identity and purity of these compounds. LD50 values are close, to be less than 500 mg/ kg bw, N-(2-diethylaminoethyl)-3-chloro-4-methoxybenzanilide hydrochloride is the most toxic of these.

The study on the action on the central nervous system showed that synthesized substances affect the ability of exploring on experimental animals at doses greater than 200 mg/ kg bw.

CONCLUSIONS

The synthesized and tested compounds proved that they have a favorable molecular profile for the appearance of antipsychotic effect, by diminishing capacity which occurs after a preliminary exploration hiprexcitability with hiperreflectivity.

Basal Cell Carcinoma Simultaneously Co-Developed with Chronic CLE Lesion

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OBJECTIVES

A 54-year-old female patient, without significant medical history, presented to Colentina 1st Dermatology Clinic, Bucharest, with multiple pigmented plaques, with keratotic plugs and fine scales on the surface, with slightly atrophic center and infiltrated edge, which appeared two years ago. They were localized retroauriculary bilateral and were puritic. A correct diagnosis was mandatory for appropriate treatment.

MATERIALS AND METHODS

The clinical diagnosis was chronic CLE (cutaneous lupus erythematous), but dermoscopy exam revealed signs of BCC (basal cell carcinoma). Skin biopsy was performed and the revised ACR (American College of Rheumatology) criteria for SLE (systemic lupus erythematosus) were evaluated. Anatomopathological report confirmed the diagnosis of BCC developed simultaneously with chronic CLE lesions, and the medical workup revealed five positive ACR criteria for SLE.

RESULTS

The patient received systemic antimalarial medication and topical corticosteroids, associated with UV (ultraviolet) protection recommendation for lupus erythematous and topical Imiquimod for BCC. The patient didn't follow the sun protection regime, which led to the development of a severe malar rash four months later. The systemic and topical therapy was reinitiated and currently the patient follows regular clinical monitoring, uses sunscreen and has a favorable evolution and prognosis.

CONCLUSIONS

The particularity of this case is the simultaneous development of a basal cell cancer with lesions of chronic CLE. BCC, unlike other skin tumors, has no precursor lesions. Moreover, chronic CLE is a known precursor lesion for squamous cell carcinoma, which makes this case intriguing. UV radiation plays a key role in the pathogenesis of both diseases, causing DNA mutations in BCC and nuclear antigen exposure and onset of autoimmunity in CLE.

Keywords: lupus, basal cell carcinoma, ultraviolet, histopathology

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Prognostic Value of 2 D Longitudinal Strain During Dobutamine Stress Echocardiography in Low Risk Acute Coronary Syndrome – Pilot Study

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OBJECTIVES

To assess prognostic importance of mechanical deformation during dobutamine stress echocardiohraphy (DSE) in patients presented in emergency room department with low risk angina. Longitudinal strain could be an useful prognostic marker in stratifying this subgroup of acute coronary syndrome (ACS).

MATERIALS AND METHODS

41 consecutive patients (53.7% females, mean age 57.61±10.7 yrs) presenting with acute chest pain classified as low risk coronary syndrome (low TIMI risk score), nonspecific serial ECG, negative troponine at six and twelve hours from the onset of pain and no wall motion abnormality on conventional echocardiography underwent longitudinal strain assessment by 2D speckle tracking. After 24 hours, longitudinal strain was assessed during dobutamine stress echocardiography (DSE). The mean global longitudinal peak systolic strain (GLS) and also segmental longitudinal strain were measured at rest, at low stress (infusion rate of 20 μg/kg/min), at peak (infusion rate of 40 μg/kg/min), and in recovery (5 min after cessation of infusion) of DSE, using automated function imaging with apical views. All patients were followed up for a mean period of 16 months for the occurrence of coronary events (myocardial infarction and recurrent angina). Bivariate correlation analysis (Person coefficient) was used to assess the relation between mechanical deformation parameters and the occurrence of coronary events.

RESULTS

During the follow-up period, 4 patients (9,8%) experienced coronary events (stabile angina). The coronary events were statistically significantly correlated with the longitudinal strain of following segments during DSE: basal anterior (BA) at baseline (rs = -0.497; p = 0.007), at low stress (rs = -0.469; p = 0,010), at peak (rs = -0.372; p = 0.028) and recovery (rs = -0.402; p = 0.038); medium anterior (MA) at baseline (rs = -0.297; p = 0.049), at peak (rs = -0.349; p = 0.039) and recovery (rs = -0.434; p = 0.019); basal lateral (BL) at peak (rs = -0.442; p = 0.045) and recovery (rs = -0.471; p = 0,017); medium lateral (ML) at recovery (rs = -0.413; p = 0.029). GLS was not significantly associated with occurrence of coronary events.

CONCLUSIONS

Our results suggests that segmental longitudinal strain during DSE could be a useful tool in stratifying patients with low risk angina for future coronary events. Some segments might have a more pronounced prognostic importance than the other, especially longitudinal strain in basal and medium segments, which can identify patients with more severe CAD. GLS didn't show any prognostic significance in this setting. These results need to be validated in a larger cohort study.

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Rheumatoid Factor and ACPA Positivity Does Not Influence Serum Drug Level in Patients with Rheumatoid Arthritis Treated with TNFalpha Blockers

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BACKGROUND

Literature data suggest that anti TNF alpha medication drug levels correlate with better clinical response in rheumatoid arthritis patients treated with such biologics.

OBJECTIVES

To evaluate the possibile correlations between serum drug level of reimbursed anti TNF drugs in Romania (etanercept, adalimumab and infliximab) and immunologic characteristics in rheumatoid arthritis patients.

METHODS

52 consecutive patients with rheumatoid arthritis, with stable anti TNF treatment for more than 6 months were evaluated. Immunologic evaluation was performed using nephelometry for rheumatoid factor and ELISA for antibodies against cyclic citrullinated peptides (ACPA). Serum drug levels were measured just before the next iv infusion or sq injection by ELISA Kit Promonitor®, Progenika SA for ETA, ADL, IFX. All patients were divided in two groups according to the detectable or undetectable serum drug levels. Statistical analysis was performed using IBM SPSS v20.0.

RESULTS

All of the patients included had the biologic associated to DMARD; 80.8% were females, mean age 60.44 (11.39), mean disease duration 13.08 (7.05). 53.8% (28) patients were treated with ETN, 34.6% (18) with ADL and 11.5% (9) with IFX. All ETN patients, 61.11% ADL and 57.14% IFX, had dosable drug levels. As expected, the presence of dosable drug levels negativelly correlated with laboratory markers of disease activity (ESR: $p=0.030$, r-0.357 and C reactive protein: $p=0.016$, r-0.394). No statistical significant difference between dosable and undosable drug level was found regarding patient's characteristics including age, disease duration, rheumatoid factor or ACPA positivity.

CONCLUSIONS

Drug serum levels of TNF antagonists correlates with markers of inflammation but not with patient's characteristics including RF and ACPA positivity.

Acknowledgement: This paper is partially supported by the Sectorial Operational Program Human Resources Development, financed from the European Social Found POSDRU/159/1.5/S/137390.

Daily Low Cortisone Treatment Does Not Influence Serum Drug Level and Disease Response in Patients with Rheumatoid Arthritis Treated with Anti TNF Alpha

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BACKGROUND

Rheumatoid arthritis (RA) is an autoimmune chronic disease which left untreated might be associated with severe handicap. Clinical response in RA patients treated with anti TNF alpha blockers can be influenced by their pharmacokineticsand immunogenicity.

OBJECTIVES

To assess if daily low cortisone treatment associated to Methotrexate influences serum drug level of anti TNF alpha blockers, Infliximab (IFX), Adalimumab (ADL) or Etanercept (ETN).

METHODS

52 consecutive rheumatoid arthritis patients on stable anti TNF treatment for more than 6 months were evaluated. Serum drug levels were measured just before the next iv infusion or sq injection by ELISA Kit Promonitor®, Progenika SA for ETA, ADL, IFX. All patients were divided in two groups according to the detectable or undetectable serum drug level. Low dose of corticosteroid was considered if less than 10 mg of Prednisone or equivalent. Statistical analysis was performed using IBM SPSS v20.0.

RESULTS

All of the patients included had the biologic associated to Methotrexate; 80.8% were females, mean age 60.44 (11.39), mean disease duration 13.08 (7.05). 53.8% (28) patients were treated with ETN, 34.6% (18) with ADL and 11.5% (9) with IFX. All ETN patients, 61.11% ADL and 57.14% IFX patients had dosable drug levels. The presence of dosable drug levels negativelly correlated with laboratory markers of disease activity (ESR: $p=0.030$, r-0.357 and C reactive protein: $p=0.016$, r-0.394). No statistical significant difference ($p=0.768$) between dosable and undosable drug level (any of three TNF blockers) was found regarding the presence or absence of associated cortisone.

CONCLUSIONS

Drug serum levels of TNF blockers correlate with markers of inflammation, but is not influenced by associated low cortisone dose.

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Tuberculous Hepatitis after Biologic Treatment in a Patient with Negative Tuberculosis Screening

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INTRODUCTION

The risk of latent tuberculosis (TB) reactivation in patients treated with biologics for rheumatic inflammatory diseases is well established. This is a great concern especially in countries with high TB burden.

CASE REPORT

A 37 years old woman with 8 years history of rheumatoid arthritis presented with high fever, dry cough, fatigue, jaundice and severe achillis tendinitis. Since the disease onset, she was treated with Methotrexate 20 mg/week, and 9 months before actual admission sq certolizumab pegol was added to DMARD with very good response. The patient was screened for tuberculosis before the initiation of biologic according to national guideline and all tests were negative. At actual admission, laboratory testing revealed high inflammatory markers, high white blood cell count, high total bilirubin and liver tests x 15 times than high normal; screening for viral hepatitis was negative. The chest radiograph showed milliary aspect with bilateral pleural effusion. Abdominal angioMRI was suggestive for active hepatitis and multiple sub diaphragmatic adenopathies. Mycobacterium tuberculosis was identified by PCR in bronchoalveolar lavage. Combined tuberculostatic treatment was started. Two months after, pulmonary X-ray and laboratory results tests were normal.

CONCLUSION

Negative screening tests for latent TB might not be sufficient for preventing tuberculosis development in patients treated with biological agents.

Antibiotics Administration During Pregnancy and the Risk of Atopic Dermatitis – a Cross-Sectional Study

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OBJECTIVE

Antibiotic exposure during the intrauterine period as a risk factor for atopic dermatitis (AD) remains controversial. The main objective of this study was to investigate the relation between intrauterine antibiotic exposure and AD occurrence. The second aim of the study was to investigate the possible association between the pregnancy trimester of the antibiotic administration and the presence of AD in the same population.

MATERIALS AND METHODS

This was a cross-sectional survey in children, aged from two months to 18 years old from 5 southern counties of Romania. The AD diagnosis was performed using core the ISAAC questionnaires. The questions related to the factors involved in AD occurrence and the administration of antibiotics during pregnancy were also included. In order to access the association of antibiotic therapy during pregnancy with the occurrence of AD, multi-parametric logistic regression with backward selection of covariates was used.

RESULTS

1008 individuals were enrolled in the study. Out of them 9.62 % suffered from AD. The administration of antibiotics during pregnancy (OR=2.60, p=0.02) was found to be independent risk factor for AD occurrence in the studied population. In addition, only the administration of antibiotics in the 3rd trimester of pregnancy was independently associated with a fourfold higher risk for AD (ORT3=4.53, p<0.01) after adjustments for all the other risk factors.

CONCLUSION

Antibiotic administration during pregnancy is an independent risk factor for AD, particularly if antibiotics were administered in the 3rd trimester of pregnancy.

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The Role of Alcohol in Road Traffic Accidents with Fatal Outcome: One Year Period Study in Mures County

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OBJECTIVE

The aim of the study was to investigate the relationship between alcohol consumption and fatal road traffic accidents that took place in Mures County (Romania) during the year 2012.

METHODS

A retrospective analysis of 78 autopsy reports of traffic accident victims was performed, with an emphasis on 16 positive toxicological findings of blood alcohol concentration (BAC) and the mode of participation in traffic (driver, passenger, pedestrian, cyclist or motorcyclist). We note that BAC was not measured for 23 victims in our study. Most of the victims without measured BAC died in intensive care units, several days after the accident. Relations between the BAC, the weekday on which death occurred, victim's age and gender were analyzed. The official method of determining the BAC is the modified Cordebard method: isolation of alcohol in the blood / urine distillation, with cold oxidation with excess dichromate K in the presence of acetic acid.

RESULTS

Alcohol was regarded as a contributive death factor if BAC was positive; that is, higher than 0.5 g/kg. BAC was positive in 17 cases. Most often it was the pedestrians who had a positive BAC. Victims of traffic accidents were mostly male, with an equal distribution between drivers and pedestrians (whose accidents were more often associated with alcohol consumption). Consumption of alcohol produced a significant increase in culpability.

CONCLUSION

The results of our study show that alcohol, though one of the main contributing factors of traffic accidents, did not seem to have a statistically significant influence in Mures County, during 2012. Chi-square test of the number of total victims and victims who were under alcohol influence, did not reveal a significant difference per general, only within the pedestrian group (P=0.046).

Case Report: Pseudohypoparathyroidism

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INTRODUCTION

Pseudohypoparathyroidism (PSP) refers to a heterogeneous group of rare disorders of mineral metabolism with resistance to parathyroid hormone (PTH), and often to other hormones activating cAMP-dependent responses downstream of various G protein-coupled receptors. It presents with the features of functional hypoparathyroidism, hypocalcemia and hyperphosphatemia, but PTH levels are usually increased indicating the end-organ resistance to PTH. In 1942, Albright described in a family with somatic changes the characteristic syndrome, symptomatic complex later called Albright hereditary osteodystrophy.

CASE REPORT

We present the case of a of 27 years-old female patient who was hospitalized in the Endocrinology Department of Elias Hospital in April 2015 with tonic-clonic seizures in the various muscle groups making carpal spasm, "main d'accoucheur" posture, spontaneous pharyngeal discomfort, and also on swallowing, recurrent the right ear pain, daily frontal headache, symptoms debuted one week before. Family history showed Cushing disease on mother and glucocorticoid severe osteoporosis. Personal history related episodes of hypocalcemia, menarche at 15 years, oligomenorrhea, and two caesareans. Clinical examination found somatic changes of Albright hereditary osteodystrophy: short stature (146.5 cm), round facies, short neck, facio-truncal adiposity, brachydactyly, brachymetacarpia (IV, V), brachymetatarsia (III, IV, V); patient sexualisation is adult type (with primary/secondary sexual characters). Laboratory findings: PTHi= 978.4 pg/ml (15-65), total calcium=8.1 mg/dL (8.4-10.2), Calcium ionized=1.59 mEq/L (2.0-2.5), Phosphorus=5.0 mg/dl (2.5-4.5), Mg=2.0 mg/dl (1.6-2.3), urinary calcium excretion=15 g/24h (5-300), TSH=11.7 μUI/ml (0.4-4.0), FT4=0.972 ng/dl (0.89-1.76), ATPO=26.4 IU/ml (5-35). Thyroid Ultrasound: thyroid volume slightly enlarged, cystic structure, posterior bilateral multiple hipoecogeneous images 0.9/0.7 cm to the right and 4 hipoecogeneous images maximum 1 cm in the left compatible with pseudolymph nodes, but could not exclude parathyroid. The final diagnosis was pseudohypoparathyroidism and primary hypothyroidism by associated resistance. Treatment was started with Alpha D3 1.5 μg/day, Cal-D-Vita 600 mg/400UI x 3/day and Euthyrox 25 μg/day, with reevaluation of patient after 6 weeks.

CONCLUSIONS

Phenotype correlated with biochemical data of phosphocalcic anomalies fit the patient in type Ia or Ic. Genetic analysis was used to confirm the final diagnosis. The case described attests the variability of expression of pseudohypoparathyroidism by complexity of Gs protein mutations at a structurally and functionally level. The particularity of the case is the presence of associated anomalies only on TSH hormone, patient evolving without hypogonadism and other abnormalities in carbohydrate metabolism.

Keywords: Pseudohypoparathyroidism, Albright hereditary osteodystrophy, Gs protein

Atypical Lipomatous Tumor of the Hand – a Rare Localization

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INTRODUCTION

Atypical lipomatous tumor (ALT), also known as well differentiated liposarcoma, represents the most frequent type of liposarcomas, counting for 40% of all liposarcomas. It occurs in the deep muscles of the limbs, retroperitoneum or mediastinum in middle aged adults. Liposarcomas are low-grade mesenchymal malignancies, locally aggressive but without any risk of metastasis if not dedifferentiated. ALT of the hand is extremely rare, with only 20 cases reported so far in the literature. Genetic studies proved a link between ALT and q13-15/q14-15 mutations on the chromosome 12, associated with amplification of MDM2 gene.

CASE REPORT

We report a case of a 59 year-old woman which presented with a well delimited tumor on the volar side of the left hand measuring 46/45/18 mm. On cut sections, lobulated yellow aspects with variable firm areas were observed. Histologically, the tumor was formed of mature adipocytes with variation in size, some atypical, focally with hyperchromatic nuclei and multiple vacuoles in the cytoplasm, the former representing lipoblasts, all embedded in an atypical myxoid and fibrous stroma. Immunohistochemical staining revealed a diffuse and weak positivity of S100, p53 and cyclin D1, whereas HMB45 was negative. Ki-67 was less than 4%. The final diagnostic was ALT. The differential diagnostic must cover various types of lipomas, hibernomas or mixoid and dedifferentiated liposarcomas. After surgical intervention, the patient did not undergo any systemic treatment, but the recommendation of constant follow-up was sustained.

CONCLUSIONS

Although ALTs are common tumors of soft tissue, in this particular case, the localization of the lesion is rare if not peculiar. Moreover, the histological aspects of this tumor can vary considerably, with cases without lipoblasts or clean atypical cells, resembling hibernomas or lipomas. Such tumors can raise diagnostic problems and assesses a long follow up of the patient.

As a conclusion, we highlight the diagnostic difficulties of such a tumor due to the histological aspects, both in hematoxilin-eozine and immunohistochemical staining, as well as the unusual hand localization. Those types of tumors remain a challenge for both pathologists and clinicians, with further complementary analysis remaining to be developed in order to fully understand and correctly treat those lesions.

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New Antimicrobial Collagen Dressing – a New Challenge for Wound Management

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OBJECTIVES

The aim of this study was to develop, characterize and test an antimicrobial biological dressing based on natural components in order to provide optimum conditions and to support rapid healing.

MATERIALS AND METHODS

ESSENTIALCOLL - spongious matrices based on collagen, zeolite and thymbra essential oils were prepared by freeze-drying according with Patent application RO128361 (A2). Comparative studies between commercial collagen wound dressing (PANCOL) and ESSENTIALCOLL were performed by scanning electron microscopy, swelling ability, enzymatic degradation and microbiological tests against *S. aureus* and *P. aeruginosa*. The biocompatibility was assessed by *in vitro* tests on fibroblasts and in vivo on rats. Similarly, 2 lots of patients (5 versus 5 patients) were monitored regarding biocompatibility.

RESULTS

Collagen represents one of the mostly used biomaterials due to its excellent biocompatibility and biodegradability properties, well established structure, biologic characteristics and the way it interacts with the body. Collagen biomaterials are used in different types of lesions (varicous ulcer, burns, wounds, etc.) as haemostatic and medical dressing. Being a natural protein, collagen is not able to heal the infected tissue by itself, bacteria using it as a substrate. In medicine today, infections and lesions of skin and soft tissues which need local treatment are cured especially with antibacterian drugs which kill or inhibit development of bacteria, fungi and viruses. But there is an increasing number of people who reject using synthetic drugs in favour of natural remedies. The novelty of ESSENTIALCOLL wound dressing is that is is consists of only natural components, non-toxic materials: human-friendly and to the environment. Moreover, comparing with PANCOL, ESSENTIALCOLL proves to be less degradable in time, very absorbent (in first several minutes), to have very compact structure with uniform pore size of about 100-200 μm and antimicrobial activity against *S. aureus* and *P. aeruginosa*. The *in vitro* tests on fibroblasts and pre-clinical on rats showed that both PANCOL and ESSENTIALCOLL are biocompatible and can be used as biological wound dressings. Human response for patients using ESSENTIALCOLL was similar to the PANCOL, faster granulation and wound healing reactions providing incipient leads of a new performant wound dressing; no adverse reactions and no late complications were encountered in the studied lot.

CONCLUSIONS

The incorporation of thymbra essential oil - zeolite compounds in collagen not only increased the enzymatic stability against collagenase enzyme, but also increased antimicrobial activity, physiological fluid absorbtion on wound and because of zeolite properties, the blood pH is balanced and thymbra essential oil has an slow delivery rate. Collagen-protein as-

sures biocompatibility with fibroblasts and fast regeneration of soft tissue. For the beneficial effects, more studies including an statistically significant lot need to be made, initial comparison adding hopes of an improved treatment. Based on the results, ESSENTIALCOLL may be good candidate as a burn/wound dressing biomaterial for wound management.

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The Influence of Total Antioxidant Capacity on Vascular Access and Cardiovascular Parameters in HD Patients

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INTRODUCTION

There is increased evidence that oxidative stress (OS) plays a significant role in worsening long-term prognosis of chronic kidney disease patients, especially after initiating chronic hemodialysis (HD). The aim of the study was to determine the influence of HD session upon total antioxidant capacity (TAC) in HD subjects and to assess the impact on vascular access outcome and possible changes of cardiovascular parameters.

METHODS

During 1 year, we conducted a prospective study on 38 HD patients (21 men and 17 women, mean age 65.7 years), performing 3 weekly sessions in our Department. Individuals with more than 3 months of HD and with low cardiovascular risks were included: planned dialysis directly on arteriovenous fistula (AVF), without diabetes, no need of erythropoietin and/or iron supplements, free of hepatitis viruses, with diuresis > 500mL/day, normal blood pressure, nonsmokers, absence of valvular alterations and preserved ejection fraction (EF) in echocardiography. The subjects were evaluated in 4 moments: at the beginning (M0), at 3 (M3), 6 (M6) and 12 (M12) months, respectively. Echocardiography was performed in all patients at M0, M6 and M12. In all 4 moments, OS was evaluated by determining TAC levels at the beginning and ending of the first and third HD session in the first week of the evaluated months. Depending on echocardiography findings at baseline, the patients were divided in group A (normal LVMI-left ventricular mass index) - 18 cases and group B (moderately abnormal LVMI).

RESULTS

At baseline, we noticed decreased levels of TAC in all patients. In all moments, after each hemodialysis session, TAC decreased furthermore but, in group B the decrease of TAC was significant more pronounced ($p=0.002$) when compared with group A in all 4 moments. In echocardiography exam at M6 and M12, we noticed an elevation of LVMI with more than > 19%, and 27%, respectively and valvular calci-

fication signs (5 cases) in group B. In group A, 7 patients with low postHD TAC values, presented an increase of LVMI more >17% and in 1 case mitral valvular calcification was noticed at M12. Alterations of EF was revealed in 6 patients from group B and in 4 patients in group A. Statistic analysis showed a significant relation between the intradialytic decrease of OS and the increase of LVMI ($p<0.001$) and between intradialytic OS changes and the valvular calcification onset in the studied groups ($p<0.001$), but no statistical correlation with EF. In 11 subjects (2 from group A and 9 from group B) we noticed a decrease of AVF blood flow at M12, and 3 patients (group B) presented AVF stenosis. The statistical analysis confirmed a strong association between intradialytic decrease of TAC and AVF poor prognosis ($p < 0.001$).

CONCLUSIONS

Although the study included a small hemodialysis cohort, our research emphasized that the hemodialysis sessions have a directly effect of increasing OS with adverse consequences upon cardiovascular parameters and even on vascular access evolution. Further trials are needed to determine if oral antioxidant supplementation in HD patients can ameliorate OS status and over-all outcome.

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Research Concerning Effects of Zinc Ion on Platelet Aggregation with Toxicological Significance

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PURPOSE

Evaluation of effects of zinc ion in toxic concentrations on the *in vitro* aggregation of blood platelets.

MATERIALS AND METHODS

The blood was purchased from healthy volunteers, who gave informed consent before participating in this study. Blood was collected in evacuated test tubes. Plasma obtained from whole blood collected with 20 USP units of lithium heparin/mL of blood as an anticoagulant was the specimen of choice. Aggregation was determined in platelet rich plasma, using the spectrophotometric method of Born, using an Hellena Laboratories Pack4 Agrregometer. The concentrations used were: 65, 130, 195 and 260 μg $Zn2^{+}$/mL PRP. Comparison of curves were performed starting from maximum aggregation, slope 1 and areas under curves.

RESULTS AND CONCLUSIONS

Effects of zinc ion on the platelet aggregation curves described by effects on maximum aggregation, slope 1 and area under the aggregation curves depended on the concentration of ion. Zinc ion had a biphasic effect: increasing of aggregation followed by decreasing aggregation. The biphasic effect could be explained in the frame of extended DLVO theory, as a nonspecific effect at the level of the double-layers of cellular membranes. Whatever the mechanism, effects, in case of high concentrations, were not high and had not a clinical or toxicological significance.

Right Ventricular Performance Correlates with Hemodynamic Data in Different Aetiologies of Pulmonary Hypertension

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AIMS

In patients (pts) with pulmonary hypertension (PH), the outcome differs between subgroups at similar levels of pressure overload. This study analyzes right ventricular (RV) parameters using echocardiography and right heart catheterization (RHC) in different types of PH.

MATERIAL AND METHODS

34 pts with PH were prospectively enrolled: 12 pts with idiopathic pulmonary arterial hypertension (IPAH, 42.2±13 years), 11 pts with chronic thromboembolic PH (CTEPH, 50.8±12 years), 11 pts with Eisenmenger syndrome (ES) [41.2±15 years, 4 with atrial septal defect (ASD) and 7 with ventricular septal defect (VSD)] as well as 13 age matched healthy individuals (38.1±15 years). Conventional and deformation imaging echocardiography was performed in all subjects and the following parameters were measured: TAPSE, RV fractional area change (RVFAC), peak systolic velocity of the tricuspid ring (S't), RV myocardial performance index (RVMPI) and speckle tracking-derived RV free wall strain. In pts, RHC was performed and mean and systolic pulmonary artery pressure (mPAPcath, sPAPcath), cardiac index (COi) and pulmonary vascular resistance (PVR) were registered.

RESULTS

The levels of mPAPcath, sPAPcath and PVR were similar between pts with PH (pANOVA=NS). Patients with ES had increased COi compared to other groups (2.94±.79, 2.28±.69, and 1.74±.46 L/min/m^2 for pts with ES, IPAH, and CTEPH, pANOVA=0.004, p post-hoc ES vs. all other groups <0.05). TAPSE, S't, RVFAC and RV free wall strain significantly correlated with COi (r=.67, p<.001; r=.49, p=.013; r=.53, p=0.006 and r=-.77, p <0.001 respectively), with the only independent predictor of COi being RV free wall strain, p=.043 in multivariate analysis.

CONCLUSION

Patients with ES have increased COi compared to other types of PH. Furthermore, RV performance is correlated with COi, linking the functional status of patients with RV function, with RV free wall strain being the only independent predictor of COi.

Surgical and Medical Treatment in a Rare Case of Complicated Multivisceral Hydatidosis

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OBJECTIVES

Early diagnosis and treatment, as well as collaboration between the specialist surgeon and parasitologist are essential for the prevention of complications and hydatidosis relapse. To better illustrate these statements, we present the case of an elderly person with a rare localization of the disease.

METHODS

From a 20 years experience, we selected a rare and significant case which had undergone numerous surgical interventions, and had received multiple courses of antiparasitic treatment, spanning a history of 40 years, due to the multivisceral dissemination of the parasite.

RESULTS

The experience of the Parasitology Department from Colentina Hospital emphasizes that postoperative recurrences occur in 20.4% of cases after 4 years, as it also happened in the presented case. The difference is that in our 2004 study the patients did not follow postoperative antiparasitic treatment. Although the patient received 3 therapy courses after the surgical intervention in September 2002, the length of her treatment was shorter than it is now recommended (in that period 2-3 postoperative courses were considered to be sufficient). The patient aged 79 years, has been in the records of our clinic for 15 years, for the monitoring and treatment of multivisceral hydatidosis. The most important aspects of the patient's personal history at presentation to our clinic were the six surgical interventions: retroperitoneal hydatid cyst in the right lumbar region operated in 1974, reoperation for lumbar relapse in 1976, reoperation for secondary retroperitoneal echinococcosis in 1984, right renal hydatid cyst operated in 1987, relapse of right renal hydatid cyst operated in 1990, relapse of multiple retroperitoneal echinococcosis operated in 1995. Between 1974 - November 2000 the patient underwent no specific antiparasitic treatment.

DISCUSSIONS

The particularity of this case consists in its rare primary location (right lumbar, retroperitoneal), and the fact that the patient underwent eight surgical interventions due to the multivisceral disease (consequent to intraoperative protoscolices dissemination). Abdominal ultrasonography is not sufficient for the monitoring of the cases with multiple abdominal surgical interventions and also in the case of retroperitoneal hydatid cysts. The postoperative residual cavity, seen after over 18 months, raised the suspicion of recurrence, indicating the need to further reintroduce the antiparasitic treatment when the hydatid cysts are still small (these respond more favorably compared to big cysts).

CONCLUSIONS

- The surgical treatment is considered to ensure the healing in the case of hydatid cyst disease, because it completely removes the disease causes.

- The medical treatment must be used complementarily to surgery in order to prevent hydatid recurrences. We noticed that it was insufficient to give antiparasitic treatment for only 3 months to prevent relapses (if big cysts and multiple determinations were found).
- The necessity of the patient monitoring twice a year was proved, in order to detect the occurrence of the possible recurrences. We found the CT monitoring with contrast dyes as useful, if performed annually. The ultrasonography should be used in 3 months - control investigations.

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The Effects of the Polyunsaturated Fatty Acids from the Breast Feed Milk on the Heart Oxidative Stress Status and Metabolic Profile of the Offsprings – a Comparative Study in Wistar Rats

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BACKGROUND

The offsprings of hyperlipidemic obese mothers are programmed for accelerated atherosclerosis. The infant formula should be enriched with long chain fatty acids to prevent dyslipidemia during later childhood.

AIM

The aim of this study is to do a comparison for the heart oxidative stress status in breast feed offsprings born from obese females Wistar rats treated with polyunsaturated fatty acids, either as Omega-3 or Omega-6 fatty acids during pregnancy and during breast feeding. The plasma metabolic profile was estimated at 6 weeks age of the offsprings.

MATERIALS AND METHODS

Fifteen obese Wistar females were raised on hypercaloric/hyperlipidic diet. After they became pregnant they continued this diet and they were divided in three equal (n=5) groups: the group without supplements, the group with Omega-3 fatty acids supplements, 1 ml/kg and the group with Omega-6 fatty acids supplements, 1 ml/kg for 3 weeks pregnancy period and for another three weeks after delivery, during breast feeding. After ablactation the offsprings (n=12-15 for each group) had a 3 weeks period of standard diet without supplementation and then they were sacrificed. The heart lipid peroxidation was estimated as malonyldialdehyde value (MDA) and the antioxidant tissue defense as total glutathione. Metabolic profile was observed in the groups.

RESULTS

The offsprings from the obese females without a supplement had the highest values for heart MDA (5.20 nmol/g tissue) and lowest value for glutathione (2.28 micromol/g tissue). The offsprings from the females treated with Omega-6 fatty acids had 4.43 nmol/g MDA, but a significant reduced value ($p<0.05$) was observed only in Omega-3 group (3.48 nmol/g MDA nmol/g tissue). The glutathione was similar in the treated groups. The worst metabolic profile (high cholesterol, triglycerides, glucose and uric acid) was observed in the group without supplements. The significant reduced values for triglycerides ($p<0.03$) and uric acid ($p<0.05$) were obtained in Omega-3 group at 6 weeks age of the offsprings.

CONCLUSION

The intake of Omega-3 fatty acids supplements during pregnancy and breast feeding, in obese mothers have beneficial effects, in time, even after ablactation, by reducing heart oxidative peroxidation and by improving metabolic profile in their offsprings.

Hyperfibrinolysis in Liver Transplantation: An Underestimated Problem

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INTRODUCTION

Haemostatic alterations in patients with End-Stage Liver Disease are complex and involve all aspects of coagulation, including fibrinolysis. The aim of our study was to investigate the incidence, risk factors and clinical impact of hyperfibrinolysis with the aid of rotational thromboelastometry (ROTEM) during the perioperative period of liver transplantation (LT).

METHODS

We retrospectively analyzed 162 patients who underwent LT between January 2013 and December 2014. Coagulation was assessed using ROTEM 1 hour prior to LT, 15 minutes into the neohepatic phase and on postoperative day 1. Hyperfibrinolysis was defined as ExTEM maximum lysis (ML) >15% and ApTEM ML<15%. Demographic data, severity of liver disease, functional liver tests, intraoperative blood loss and transfusion, postoperative transfusion and outcome were collected.

RESULTS

Of all patients, 21.6% (n=35) had hyperfibrinolysis at the time of LT. Risk factors for hyperfibrinolysis were younger age (p=0.039) and increased cholestasis: bilirubin levels (p=0.017) and alkaline phosphatase (p=0.042). Hyperfibrinolysis was clinically relevant (diffuse bleeding) in 23 pts (14.2%) and required antifibrinolytic therapy. Preoperative hyperfibrinolysis was associated with increased intraoperative fresh frozen plasma (p=0.027) and platelets transfusion (p=0.043). 16 patients (9.87%) had severe hyperfibrinolysis after reperfusion of the liver graft. Intraoperative hyperfibrinolysis correlated with higher fibrinogen requirements (p=0.008). Postoperative hyperfibrinolysis was observed in 4 patients (2.46%) and was associated with delayed graft function (p=0.001).

CONCLUSION

Hyperfibrinolysis is frequent in the perioperative period of LT. ROTEM can fully assess the severity of hyperfibrinolysis and goal directed therapy can be applied in order to reduce blood loss and transfusion requirements.

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Hepatitis B Reactivation Associated to Rituximab Therapy for B-Cell Non-Hodgkin Lymphoma - Case Reports

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INTRODUCTION

Rituximab is a monoclonal antibody targeting CD20 B-cell used in Non-Hodgkin lymphoma (NHL). This molecule caries a high risk of hepatitis B reactivation in HBsAg carriers as well as in patients with past infection.

CASE REPORTS

Case 1. The patient presented at the hospital after the fifth R-CHOP cycle with jaundice and dark urine. He had 12 times the normal value of ALT, hyperbilirubinemia and cholestasis syndrome. Under symptomatic treatment there was an improvement of his lab tests so he was released with no antiviral treatment. After 3 months he returns with recurrence of symptoms. Lab tests revealed ALT x 25N, total bilirubin x 10N and low prothrombin concentration. He received treatment with diuretics, fresh frozen plasma and antiviral therapy with Entecavir 0,5mg/day with good clinical response.

Case 2. The patient was referred to our hospital for increased liver enzymes detected at a routine check-up 6 weeks after the last R-CHOP cycle. At the time, the antiviral treatment was not available. Only when we started the antiviral therapy with Entecavir 0,5mg/day we noticed a decreased in his ALT values and viral load.

During the following evaluations of both patients there were no increased in ALT values.

CONCLUSION

The HBV reactivation highlights the importance of preemptive antiviral therapy for HBsAg-positive patients undergoing chemotherapy, irrespective of their baseline viral load.

Keywords: rituximab, hepatitis B reactivation

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A Closer Look to the Minerals' Intake to Overweight and Obese Patients

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BACKGROUND AND AIMS

Obesity is a major public health problem and its prevalence doubled in the last 35 years. Knowing dietary's habits and caloric, minerals and vitamins' intake are the first step in obesity treatment.

MATERIALS AND METHODS

119 patients with body mass index above 25 kg/m^2 were recruited from a private clinic for a nutritional intervention. We assessed the kilocalories, vitamins and minerals from intake food using a 7-day weighed food self-records before starting the program for weight management. We also measured resting metabolic rate (RMR) after eight hours fasting with an indirect calorimeter that used the dilution technique for accurate measurements.

RESULTS

63.87% patients eat more than measured RMR. Considering a normal measured RMR between 85 to 115% from estimated RMR using formulas, we found that 62.29% have a normal metabolism and only 32.79% have a slow one. The mean intake of iron is normal (between 90 to 110% of Dietary Reference Intake-DRI), but there is an excessive intake of phosphorus, zinc, copper, manganese, selenium and sodium. Overweight and obese patients don't eat enough calcium and magnesium.

CONCLUSIONS

Even that there was a hypercaloric diet, the overweight and obese patient had imbalance intake of minerals before nutritional intervention. We need to pay more attention to food quality and quantity during low caloric diet, thus to assure the recommended daily intake for vitamins and minerals.

The Influence of Coronary Artery Anomalies in the Vascularization of the Heart – Clinical Study

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OBJECTIVE

Coronary artery anomalies include congenital abnormalities of the origin, number, course, termination or structure of the artery. They can be asymptomatic and are discovered during investigations for other diseases or can be involved in the cardiac pathology. This study is focused on the implication of coronary anomalies in myocardial ischemia.

METHODS

We retrospectively studied the results of 1534 coronary angiography performed in the Clinical Emergency Hospital, in the period of 2006-2009. The patients were aged between 40 and 78 years old, both men and women, and were investigated for the presumptive diagnosis of myocardial ischemia. We considered anomalous coronary artery the abnormalities of number, origin, course and termination of the artery.

RESULTS

Of the 1534 coronary angiography studied, we identified coronary abnormalities in 71 (4.63%) angiographic results. We found the following anomalies: 33 (46.48%) cases of myocardial bridge on the left anterior descending of which 18 (54.55%) were responsible of the acute cardiac event; 10 (14.08%) cases of duplication of the left anterior descending, 8 (80%) of them caused important myocardial ischemia. In 4 (5.63%) patients we found the combination of the previous two anomalies, 3 (75%) were involved in cardiac pathology; in 5 (7.04%) cases a "gun barrel" origin of some arteries was identified with the implication of 1 (20%) in the myocardial lesion. Others abnormalities, like anomalous origin, fistulas or modified vascularization territory were identified in 19 (26.77%) cases of which 5 (26.31%) were the cause of myocardial ischemia.

CONCLUSION

From the results of our study group we concluded that the most frequent identified anomaly was the myocardial bridge on the left anterior descending and over half of these were involved in cardiac pathology. The next abnormality in order of frequency was the duplication of the left anterior descending which caused myocardial ischemia in 80% of the cases. The others anomalies did not had an important impact on the vascularization of the heart. The myocardial bridge on the left anterior descending was more frequent than the duplication of the left anterior descending, but had a smaller impact on the vascularization of the heart than the duplication.

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Anticoagulation versus Antiplatelet Therapy after Ischemic Stroke – Case Report

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OBJECTIVES

In the embolic stroke the treatment involves anticoagulant, while in the atherothrombotic one this therapy has no benefit and the antiplatelet drugs are recommended.

METHODS

An 82-year-old woman is admitted for hemiplegia of the right arm and leg and global aphasia installed 6 weeks ago. Except for hypertension treated inconstantly, her medical history is unremarkable. On admission her blood pressure was 130/70 mmHg, and her pulse was 75 beats per minute with an irregular heart beat.

The patient's evaluation included hemoleucogram, biochemical analysis of the blood, cerebral computed tomography (CT), doppler study of the carotid arteries, electrocardiogram and echocardiography. Ischemic stroke risk and bleeding risk with anticoagulant were predicted by applying CHA_2DS_2-VASc and HAS-BLED systems.

RESULTS

Except for dyslipidemia the lab results are normal. The cerebral CT detects ischemic stroke lesions, multiple lacunar infarcts and cerebral atrophy. The echocardiography reveals a dilated left atrium, left ventricular hypertrophy and dysfunction, ejection fraction 50% and aortic sclerosis. The ultrasound shows occlusion of the left internal carotid.

After investigations she is diagnosed with ischemic atherothrombotic stroke, localized in the left cerebral hemisphere, in the territory of the middle cerebral artery. CHA_2DS_2-VASc score was 7, and HAS-BLED 3.

DISCUSSIONS AND CONCLUSIONS

The patient had atrial fibrillation, hypertension and dyslipidemia. In the hospital her treatment included heparin, angiotensin converting enzyme inhibitors, diuretic, beta-blockers, rosuvastatin and acenocumarol. In order to prevent another stroke it must be decided if her treatment will include antiplatelet therapy, anticoagulation or both. Multiple studies showed that anticoagulants do not increase the benefits in the secondary prevention of atherothrombotic stroke. The patient's atrial fibrillation and CHA_2DS_2-VASc score 7 indicates that she needs anticoagulant and the occlusion of the left internal carotid requires antiplatelet drugs. But because of her age and moderate risk of bleeding she will receive only anticoagulant, dabigatran 150 mg twice a day. The association of anticoagulant with antiplatelet should be limited only in coronary patients.

Intravascular Ultrasound-Guided PCI of Distal Left Main Coronary Artery Lesions

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INTRODUCTION

In left main coronary artery PCI, the adverse consequences related to suboptimal stent deployment are more dramatic, and, as such, intravascular ultrasound guidance may be of particular importance in this lesion subset. The mechanism of benefit of IVUS-guided PCI of distal left main coronary artery stenosis is related to reduced rates of sudden cardiac death related to late stent thrombosis.

CASE REPORT DESCRIPTION

We report a case of 60-year-old male patient admitted for aggravated angina. Past history of the patient includes coronary artery bypass graft surgery (left internal mammary artery on left anterior descending artery (LAD) and saphenous vein grafts (SVG) on ramus intermedius (RI) and first marginal branch), failure of the SVG after 3 months, complex PCI with drug eluting stents (DES) of the distal left main stem trifurcation lesion. Transthoracic echocardiography revealed mild left ventricular systolic dysfunction (left ventricle ejection fraction = 40%) and apical aneurysm with organized thrombus. Coronary angiography showed severe intrastent restenosis on LAD and RI. A successful PCI with drug eluting stent was performed. The hemodynamic significance of the distal left main stem stenosis was investigated using iFFR and FFR and the PCI final result was assessed using IVUS.

DISCUSSIONS

In assessing the causes of rapid DES restenosis we should take into account the implantation factors (incomplete stent expansion, stent fracture, resistance to antiproliferative drugs), and the antiplatelet therapy used. In this case we used IVUS to obtain an optimal angiographic result and the antiplatelet drug was changed according to platelet aggregation tests.

CONCLUSIONS AND IMPLICATIONS FOR CLINICAL PRACTICE

Given the potential dire clinical consequences of procedural failure resulting in stent thrombosis or restenosis within the left main coronary artery segment, IVUS-guidance should be strongly recommended as the standard of care during left main coronary artery PCI.

Second Year Dental Students' Psychological Well-Being Over the First Academic Semester

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OBJECTIVE

To evaluate psychological well-being of second year dental students over the first academic semester.

METHODS AND MATERIALS

A single-arm, prospective study was designed and implemented on second year dental students from the Faculty of Dental Medicine, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania. Positive psychological well-being was assessed using the WHO-5 Well-being Index. Data was collected during the first semester of the 2014-2015 academic year (from October 1st 2014 to February 15th 2015), during the teaching period (2nd, 7th, 13th week) and semester examination period (4th week).

RESULTS

From the 85 eligible dental students, 70 students (82%) filled the questionnaires in all 4 moments in time (49 females, 57 being 20 years old). Students' well-being has changed over the first semester of the academic year, respectively being the best in the 2nd week of the semester (mean WHO-5 score of 65.77), and the worst during semester examination period (mean WHO-5 score of 58.06). By multiple regression analysis there was observed that well-being (measured by WHO-5 score) during semester evaluation period is poorly predicted by well-being in the beginning of the semester (2nd week), but is better predicted by well-being in the second half of the semester or by similar periods, in regard to the quality of stressors (7th week and 13th week of teaching period).

CONCLUSIONS

Dental students seems to exhibit during the semester examination period decreased levels of well-being. Further research is needed in order to establish how much this negatively affects their performance, which is directly related to the accuracy of academic examination, as short-term effect, and their health as long-term effect. Dental schools may help students, through formal and informal offering, to cope with inherent academic stressors and sustain their well-being.

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Sources of Stress and Well-Being in Dental Students

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OBJECTIVE

To identify the sources of stress and assess well-being in dental students.

METHODS AND MATERIALS

An observational study was implemented on a convenience sample of 2nd and 3rd year dental students, from University of Medicine and Pharmacy CAROL DAVILA, Bucharest, Romania. The sources of stress were evaluated by the usage of a modified version of Dental Environment Stress (DES) questionnaire, administered in English, and psychological well-being was assessed by the usage of WHO-Five Well-being Index (WHO-5). Data collection was conducted online, by creating a questionnaire in Google Docs Form.

RESULTS

Thirty-six dental students filled the online questionnaire, 10 being in their second year and 26 being in their third year. They were 20 to 22 years old, most of them being females (n=30) and Romanians (n=32). The identified primary sources of stress perceived by the dental students were competition for grades, examinations, lack of time for relaxation, expectation versus reality of dental school and shortage of allocated clinical time. From the domains of DES questionnaire, most stressful were those related to academic factors, respectively in descending order: the "academic work", "clinical factors" and "educational environment". To the WHO-5 questionnaire students registered scores from 12 to 96, with a mean of 60 percentage score. By multiple regression analysis there was observed that only stressors of "educational environment" domain significantly predicted dental student' psychological well-being.

CONCLUSION

Considering the limitations of this study, it suggests that academic related stressors may be linked to the psychological well-being of the dental students. Future research is recommended in order to gain more knowledge upon these aspects, considering the possible short- and long-term consequences (e.g., may affect the academic performance, is a risk factor for anxiety, depression and burnout, might be linked to behavioral patterns and health of the future doctors).

Keywords: education, training, exams, psychological, mental, faculty, university

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The Specifical Characteristics of Subadults Age Estimation of Anthropological Analysis of the Waist and Head Circumference

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OBJECTIVE

The study was conducted on 181 forensic cases which required an anthropological forensic exam, in order to estimate the age in subadult individuals (under 13 years old). In Romania, the age estimation for a living person is performed on a working protocol derived from the rules developed by the Study Group for Forensic Age Diagnostics.

METHODS

The study was conducted on 181 forensic cases, which required an anthropological forensic exam so as to estimate the age in subadult individuals (under 13 years old). The study included 93 females and 88 males. For each parameter, a linear regression equation for males and, respectively, females was created. The adjusted R2 values for the equations created based on the above parameters were in all cases over 0.5. The best values were obtained, in the case of both sexes, for the waist and the head circumference.

RESULTS

By introducing all of the variables analyzed above, in a regressive matrix, and of using the stepwise method to eliminate variables, the following polynomial regression equations were obtained:

- For males: Age=0.166*Waist (cm)-12.281 *Head circumference (cm)-43.879 which has an adjusted R2 of 0.917
- For females: Age=0.148*Waist (cm)-10.163* Head circumference (cm)-32.835 which has an adjusted R2 of 0.932

CONCLUSIONS

Based on the regression equations obtained for age estimation from general anthropometric parameters, we can create algorithms either in Excel or programming languages which may allow, in many cases, to identify the age with a margin of error of a few weeks.

Treatment and Management of Fetal Growth Restriction. Case Report

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INTRODUCTION

The intrauterine growth restriction with severe oligohydramnios is a diagnosis that is associated with an increased risk of neonatal mortality and morbidity, mainly caused by pulmonary hypoplasia. The pathophysiological mechanism consists of platelet aggregation and placental thrombosis.

MATERIALS AND METHODS

We present the case of a pregnant, aged 24, which presented in the clinic for ultrasound consult. The ultrasound examination revealed: 31 weeksold pregnancy, living foetus, breech presentation, posterior placenta III-IV degree, severe oligohydramnios, IUGR of 5 weeks.The foetus weighted 951 gr +/- 139gr corresponding to 26 week 2days. The patient was advised to perform the thrombophilia blood work, which highlighted that antiphospholipid antibodies were present. LMWH (low molecular weight heparin) therapy was started with a daily subcutaneous dose of 0.6 ml. The pregnancy was closely monitored by ultrasound, NST (non-stress test – using a cardiotocograph), blood work – including the Xa factor. The pregnancy was ended by caesarean section at 34 weeks due to fetal bradycardia and severe oligohydramnios (womb moulded to the fetus). We extracted from breech presentation a living foetus; gender: male; weight: 1400 gr; Apgar score: 6. Postoperative course was favorable.

The same patient presented 2 years later with another pregnancy. At 12 weeks of pregnancy, the echography revealed an increased PI on the uterine arteries. Anticoagulant and antiaggregant therapy was started. The pregnancy was carefully monitored without detecting abnormalities in child's development.

RESULTS

The pregnancy was ended by caesarean section at 39 weeks, due to spontaneous ruptured membrane and cicatricial uterus. We extracted a living foetus; gender: female; weight: 3250 gr; Apgar score: 9. Postoperative course had no problems.

CONCLUSIONS

During pregnancy, risk factors for thrombosis produced by the alteration of the vascular wall through stasis, with physiological hypercoagulability, are present. Congenital or acquired thrombophilia, and obstetric history of pregnant women are indications for prophylactic and curative treatment. Prophylactic antithrombotic therapy with low molecular weight heparin (LWMH) and/or antiplatelet drug, justified by a correct diagnosis, leads to favorable obstetric outcomes.

Abdominal Supra-Aponeurotic Giant Collection, Diagnosis Uncertainty in Overweight Patients – Case Report

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OBJECTIVES

Overweight patients sometimes present diagnosis problems, especially in those with operated parietal defects when it is difficult to assess clinically a possible recurrence of the parietal defect or a complication like a seroma, hematoma, etc.

MATERIALS AND METHODS

We present the case of a 53-year-old overweight female patient, who underwent an open cholecystectomy through right subcostal incision 3 years before. 2 years after the primary surgical intervention, the patients returns to our department for an incisional hernia and surgery of the parietal wall defect is performed, with alloplastic reinforcement of the abdominal wall (Chevrel procedure). Postoperative evolution is favorable. After another 6 months, the patient is readmitted for the recurrence of a irreductible tumor in the right subcostal area, with local inflammatory signs and impaired bowel transit. Abdominal CT scan is performed and reveals the integrity of the anterior abdominal wall and a well-defined supra-aponeurotic collection. Surgery is performed, with the evacuation of approximatively 1500 ml of uncoagulated blood and blood clots, also revealing the integrity of the abdominal wall and the alloplastic material covered by fibrous tissue.

RESULTS

Postoperative evolution of the patient was favorable, with minimal supra-aponeurotic drainage – 100 ml of serous-bloody aspect the first day that decreased afterwards. The drainage was suppressed on the 4th day after the intervention and the patient returned to the surgical control after 14 days and 30 days, with a favorable course.

CONCLUSIONS

The diagnosis of late postoperative hematoma was difficult to make due to the well represented fatty tissue. You cannot always accurately determine preoperative the diagnosis of recurrence of a parietal defect, sometimes further investigations being required to establish a more accurate preoperative diagnosis and to avoid intraoperative surprises.

Medial Canthal Reconstruction in a Patient with Periocular Basal Cell Carcinomas: a Case Report

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OBJECTIVES

Basal cell carcinoma is the most common type of skin cancer, predominantly found on the head and neck. The eyelids are involved in 10% of the cases, making it the most frequent eyelid malignancy, medial canthus being the second site of manifestation after lower eyelid. Even though is a slow growing and non-metastasing tumor, eyelid basal cell carcinoma has a significant risk for damaging the tissue nearby vital ocular structures and even blindness.

The purpose of this paper is to present the therapeutic management of multiple basal cell carcinomas on the medial canthus and lower eyelid in case of a 59-year-old man.

MATERIAL AND METHODS

We describe the case of a 59-year-old male patient with no additional comorbidities, admitted in the Plastic Surgery Department with multiple lesions on the medial canthus and on the lower eyelid of the right eye that had increased slowly in size over the past four years.

The treatment consisted in excision of the tumors with safe margins and reconstruction of the medial canthus with a full thickness skin graft from the upper eyelid.

RESULTS

Histopathological examination revealed nodular basal cell carcinomas, completely resected with safety margins.

Postoperative results were favourable. No local complications were encountered, including epiphora, orbital hematoma or corneal injury. After 2 months there was no evidence of recurrence.

CONCLUSIONS

Despite the invasion and the size of the tumor, complete resection was possible with an adequate reconstruction and with no lesions of the lacrimal system.

Reconstruction of the medial canthal region is complex due to the variety of structures that can be involved and the unique contours, medial canthus playing a significant role in facial expression.

Salivary Biomarkers of Cellular Proliferation in Oral Cancer

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BACKGROUND

Saliva can be utilized as a diagnostic fluid for a number of oral affections, such as oral cancer due to the high number of biomarkers contained, and the ease of recoltation.

Cellular proliferation is an important mechanism of tumoral development. Ki-67 is a marker for cellular division being present during active phases of the cell cycle. Squamous cell carcinoma antigen (SCCA) is a specific proliferation marker for squamous cell carcinomas.

OBJECTIVE

Evaluation of the diagnostic potential of salivary biomarkers of cellular proliferation in oral cancer.

MATERIALS AND METHODS

- Patients group: 30 patients (ages between 40 and 65), diagnosed with oral squamous cell carcinomas.
- Control group: 14 healthy volunteers with no associated oral or general diseases (ages between 40 and 60 years old).
- Both salivary parameters were measured using the ELISA method.

RESULTS

Ki-67 showed increased levels in the saliva of oral cancer patients compared to the control group (1.6 ng Ki-67/ mg albumin ± 0.2 ng Ki-67/ mg albumin versus 0.35 ng Ki-67 / mg albumin ± 0.05 ng Ki-67 / mg albumin). SCCA was absent in the saliva of the control group and was found increased in patient's group saliva (3.9 ng SCCA/mg albumin±0.6 ng SCCA / mg albumin).

CONCLUSIONS

The present study shows that salivary diagnosis has the potential of becoming a powerful tool in detecting and monitoring oral cancer patients.

Keywords: saliva, oral cancer, Ki-67, SCCA

Fixation Failure after Proximal Humeral Fracture Osteosynthesis on Osteoporotic Bone – a Case Report

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INTRODUCTION

Osteoporosis is a systemic disease and a major health problem characterized by low bone mass and microarchitectural deterioration of bone structure, resulting in bone fragility and increased susceptibility to bone fracture.

Untreated osteoporosis aggravates fracture fixation, demonstrated in a number of biomechanical experiments that assessed various implant configurations at different bone locations and loading modes.

OBJECTIVES

The Locking Intramedullary Nails system offers a number of advantages in fracture fixation combining intramedullary stability through the use of locking screws with traditional fixation techniques. This makes the implant particularly suitable for use in poor bone stock and complex joint fractures, especially in the epimetaphyseal area. However, the system is complex, requiring careful attention to biomechanical principles, and a number of potential pitfalls need to be considered.

MATERIALS AND METHODS

Authors present a case report of a 73 year old woman with proximal humeral fracture on osteoporotic bone who underwent fracture fixation with locked intramedullary nails and later fixation failure with secondary screw migration.

The patient had secondary osteoporosis due to corticosteroid (Medrol) and antimetabolite and antifolate drug (Methotrexate) for rheumatoid polyarthritis.

Radiographs were analyzed for fracture classification, evaluation of fracture reduction, implant positioning and later fixation failure.

Six months after fracture fixation with locked intramedullary nails the patient presented shoulder pain and movement impairment in abduction. Follow-up radiographs showed proximal screw migration due to local poor bone stock.

RESULTS

Surgery with removal of the migrated screw was performed, with the complete recovery of the patient. At the six weeks follow-up the patient presented with pain free shoulder and full range of motion restored.

CONCLUSIONS

A limited number of cases of fracture fixation failure have been reported in the literature and only a few describe the implications of osteoporosis on fracture fixation. The management of these fractures is difficult due to the poor bone stock involved and the problems that may occur with inadequate fixation and strength of implants used to stabilize the fracture until callus is formed.

This case report underlines the osteoporosis effects on the fracture osteosynthesis. Complications like screw migration can be avoided with early osteoporosis treatment and better fixation techniques.

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Correlates of Osteoprotegerin and Association with Cardiovascular Status in Patients with Chronic Kidney Disease

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The aim of the present study is to evaluate the association between serum osteoprotegerin (OPG) and cardiovascular status evaluated by heart failure symptoms, echocardiography, vascular stiffness and common carotid intima-media thickness (IMT) in chronic kidney disease (CKD) patients.

We enrolled 95 CKD patients (65±11 years, 67 men) in pre-dialysis (10 patients with CKD stage 2, 62 patients with CKD stage 3, 23 patients with CKD stage 4), and 20 healthy controls. OPG was measured using xMAP technology (Luminex® 200™). Echocardiographic evaluation was performed in order to evaluate cardiac structure, left atrial volume index (LAVI), left ventricular mass index (LVMI), left ventricular function, including transmitral peak early diastolic velocity (E), peak late filling diastolic velocity (A), E/A ratio. The cardiac clinical functional status was defined according to the New York Heart Association (NYHA) classification. Arterial stiffness measurements were performed with the SphygmoCor device. We evaluated IMT and the presence of ateroma plaques by ultrasonographic study of the common carotid arteries. Statistical analysis was performed using IBM SPSS Statistics Version 21.

The mean OPG serum level was 717.0 ±307.6, and was significantly higher ($p<0.05$) in CKD patients than in healthy controls. Diastolic dysfunction was present in 80% patients, arterial hypertension in 95.8%, metabolic syndrome in 54.7% patients. Echocardiographic results showed LAVI=40.5±16.3ml/m^2, LVMI =116.8±28.8g/m^2, E/A=0.91±0.37. Mean IMT and mean pulse wave velocity values were significantly elevated in CKD patients versus control group. OPG inversely correlated with eGFR ($p=0.014$). OPG correlated positively with age ($p=0.014$), iPTH level ($p=0.005$), and negatively with hemoglobin ($p=0.001$) and albumin ($p=0.0001$). Also, OPG level was significantly higher in CKD patients with concomitent metabolic syndrome. OPG correlated positively with LAVI ($p=0.006$), NYHA class ($p=0.014$), and mitral valve regurgitation ($p=0.02$). A stepwise multiple regression analysis revealed that E/A ratio was independently correlated with OPG level, diastolic blood pressure and subendocardial viability ratio (SEVR), suggested an association bertween OPG and diastolic dysfunction. OPG showed a significant correlation with IMT. We didn't find significant correlation between OPG and vascular stiffness.

Our study shows that OPG is correlated with heart failure clinical symptoms, diastolic dysfunction and aterosclerosis in CKD patients. Our data underscore that cardiovascular disease occurs even from early stages of CKD and OPG could be used as surrogate biomarker for cardiovascular complications among patients with CKD.

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Selecting Patients for Extracorporeal Liver Support Therapy - Experience of a Single Romanian Center

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The Molecular Adsorbents Recirculating System (MARS) is an artificial liver support system that removes albumin-bound and water-soluble toxins that accumulate in liver failure, providing better conditions for liver recovery.

We analyzed the prognostic factors for clinical outcome of patients with AoCLF treated with MARS in the Clinic of Internal Medicine and Nephrology in order to improve the MARS procedure indication and the selection of patients for therapy.

Between January 2001 and December 2014 we treated 51 liver failure patients, to whom we performed 92 MARS sessions. The etiology of severe liver failure was: acute liver failure (n=15), acute on chronic liver failure (n=26), post liver transplantation graft failure (n=8), and post-hepatectomy liver failure (n=2). Before starting MARS therapy 8 patients had sepsis, 20 patients presented renal impairment (9 patients with hepatorenal syndrome), 26 patients presented hepatic encephalopathy grade II or higher. MARS therapy was safe and well tolerated. We noticed favorable clinical effects: improvement in general condition, neurological status, regression of jaundice and pruritus, improvement in renal function and hemodynamic status. We obtained statistically significant improvement of serum total and direct bilirubin, serum creatinine, urea lactate. We also obtain a significant decrease of TNF-alpha after MARS. Regarding the outcome of the patients, in ALF group, 7 patients (46.6%) completely recovered the hepatic function. In the AoCLF group 3 patients were bridged with liver transplantation and 8 patients recovered their pre-decompensation status. The mean survival of the AoCLF patients (n=15) on the liver transplantation waiting list was 23.0 ± 6.9 days. The Kaplan-Meier and survival modeler analisys showed that the unfavorable prognosis factors for survival were: the presence of sepsis and multiple organ failure, hepatic encephalopathy grade 2 or higher, and renal dysfunction. We hadn't found a relationship between age, etiology of liver failure or the bilirubin level and the patient' survival.

In our experience, MARS therapy is a promising treatment for acute liver failure patients, allowing their own liver to recover. In AoCLF patients, MARS therapy provide temporary support and could be used as bridging method until liver transplantation is achieved. The most important predictor of survival was the grade of hepatic encephalopathy ≥ 2. Thus, the start of the therapy when the patient meets the criteria for the MARS treatment is essential for the clinical success. MARS treatment is a costly procedure which can only be applied to a carefully selected patients, following the identified criteria.

Stro-1 and CD133 Can Identify Myogenic and Adipogenic Cardiac Stem Cells Lineages in Aged Humans

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ABSTRACT

The research of adult stem cells (ASCs) niches continuously adds new data of use in regenerative medicine. Yet, organ-specific ASC markers are incompletely explored. Cardiac stem cells (CSCs) were not searched previously, nor in humans, nor in mammals, for expression of Stro-1, a well-known marker of mesenchymal stem cells (MSCs), which known to differentiate towards osteogenic, chondrogenic, myogenic and adipogenic lineages. We aimed to and searched the expressions of Stro-1, CD133 and CD117/c-kit in human postmortem samples from the posterior walls of the left atriums, from five donor cadavers with ages varying from 68 to 72 years. Histologically we found cardiac myotubes (MTs) and brown adipocytes (BAs), within the subepicardium and myocardial interstitia. We also found immunohistochemical proofs of large stromal cells, Stro-1+/CD133+, without any prolongations. Stromal c-kit+ mast cells were recorded. Cardiac MTs were Stro-1+/CD133-. The BAs expressed Stro-1 and c-kit, but not CD133. We also identified a perivascular cardiac stem niche containing fibroblastoid c-kit+ cells in the vascular mural and perivascular areas. We therefore raised the hypothesis that in human aged heart an embryonic mechanism is reactivated, thus BAs and muscle cells derive from a common stem ancestor. The MSC specificity of Stro-1 as well as the CD133 specificity for brown adipose tissue-derived stem cells able to differentiate in cardiomyocytes support this hypothesis. However, myogenic factors should be further determined in CSCs-derived human cardiac MTs and BAs to test this hypothesis.

Electronic National Registry of Brain Arteriovenous Malformations – a Useful Tool in Monitoring Patients with Cerebral Vascular Pathology

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OBJECTIVES

Objectives of "electronic national registery of brain AVMs (RegNaMAV)" are a design and implementation of an electronic database, national registry type, secured, easy to use, with agreeable interface, in which data regarding patients with brain AVMs, from the whole country, can be stored. This project tests the possibility to monitor frequency of brain AVMs, clinics, treatment, long-term outcome, optimization of therapeutic strategies, optimal treatment choice, foreseeing possible complications, methods to control and minimize the consequences and identification of prognostic variables.

MATERIAL AND METHOD

I designed an electronic database, national registry type (RegNaMAV). I created an integrated information system, electronic database type, I secured and validated the system and I launched the application on-line. I annexed a patient's informed consent regarding storage and use of personal data for purposes of scientific research. The data will be used strictly for purposes of scientific research, respecting law in force.

RESULTS

The electronic database will record general data (name, identification number, address, telephone), age, sex, date of admission, date of discharge, diagnosis, history, family history, mRS at admission, Karnofsky score at admission, GCS at admission, neurological exam, special patterns (ruptured/unruptured, with seizures/without seizures), imaging (nidus size, blood flow pressure, venous drainage, Spetzler-Martin grade), treatment (surgery, stereotactic radiosurgery, endovascular embolization, multimodal treatment), complications, mRS at discharge, Karnofsky score at discharge, long-term outcome, quality of life, social reintegration and photo gallery.

CONCLUSIONS

Electronic national registry of brain arteriovenous malformations (RegNaMAV) is a useful tool in monitoring patients with cerebral vascular pathology.

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New Insight into the Pharmacokinetics of Clopidogrel: Influence of Sampling Conditions on Metabolites Determination

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OBJECTIVES

At present time, very little is known about the PK profile of 2-oxo-clopidogrel (key intermediate in the formation of the active metabolite of clopidogrel and now also a newly patented prodrug) and the processing conditions that may bias its quantitative determination. Previously performed ex-vivo tests with incubation of 2-oxo-clopidogrel in whole blood have showed a marked decrease in substrate recovery from 15 to 60 minutes, degradation likely mediated by paroxonase-1. It was subsequently hypothesized that, should PON be responsible for the observed conversion, the type of anticoagulant used for the collection of blood samples in PK studies may influence the obtained results. The objective of this work was to establish if EDTA (PON inhibitor) or the combination of EDTA + DTT (anti-oxidant) bring additional benefits in terms of bench-top stability of 2-oxo-clopidogrel as compared to Heparin.

MATERIALS AND METHODS

Four clopidogrel naive healthy volunteers were treated with Plavix 75 mg, administered in single dose, in fasting conditions. Blood samples were drawn in single use syringes at the following time-points: before dosing and at 0.5, 1, 1.5, 2, 4, 6 and 8 hours post dosing. Immediately after collection, each sample was divided in three aliquots which were placed in monovettes containing Heparin, EDTA and respectively EDTA + DTT (1,4-dithio-DL-threitol). After sample processing, oxo-clopidogrel concentrations were determined using a high sensitivity HPLC-MS/MS method; mass-spectrometer: 5500 LC/MS/MS AB SCIEX Triple Quad™; analytical column: Ascentis Express RP-AMIDE 10 cm*2.1 mm, 2.7μm.

RESULTS AND CONCLUSION

The two-tailed paired T-Test used to compare Heparin vs. EDTA data and Heparin vs. EDTA + DTT has showed that the concentrations obtained after placing the exact same blood sample in tubes with these anticoagulants, differ in a statistically significant matter (p-values < 0.05 at several post-dose sampling time points). Since it was shown that anticoagulant used can impact bench-top stability of 2-oxo-clopidogrel (and very likely also other moieties containing lactone rings) depending on its ability to inhibit PON activity, and furthermore, the magnitude of substrate degradation in samples with active PON is expected to be subject-specific (common polymorphisms that affect the hydrolytic efficiency of the enzyme are known), a potential source of bias has been identified for inter-subject variability of PK parameters.

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Phenotypic Profile of *Staphylococcus* Spp. A Study on Biofilm Formation in Clinical versus Commensal Strains

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OBJECTIVES

Staphylococcus spp. infections record an increasing prevalence worldwide, with *Staphylococcus aureus* included as part of the ESCAPE pathogens, and with a significant clinical impact of non-aureus strains in Europe. In this context, staphylococcal strains have gained attention both in clinical settings and in research facilities, particularly for their capacity to form biofilms and generate hard-to-treat, antibiotic-resistant infections.

METHODS

We performed a study to assess biofilm formation in 90 *Staphylococcus* spp. strains isolated from asymptomatic nasopharyngeal carriage (commensal strains) or from patients with hard-to-treat infections (clinical strains).

We applied Christensen's method to study the capacity of staphylococcal strains to form biofilm on inert polystyrene surfaces, as determined spectrophotometrically (A490 nm) on HumaReader HS. Results were statistically analyzed with IBM SPSS Statistics v.22 (Chicago, USA) to identify significant differences between the studied isolates.

RESULTS

Overall, 68 strains (81.9%) displayed the capacity to form biofilm, with a mean optical density of 0.153±0.068, vs. 0.106±0.012 in biofilm-negative strains (p=0.006). Interestingly, significantly more commensal strains formed biofilm (37/41, 90.2%) when compared to clinical strains (31/42, 73.8%) (p=0.026, Z-score=1.9454).

We recorded no significant differences between S. aureus (61/75, 81.3%) and coagulase-negative staphylococci (7/8.87.5%) (p=0.334, Z-score=-0.4309), between methicillin-resistant (23/27, 85.2%) and methicillin-susceptible (32/43, 74.4%) strains, or between strains displaying internalization into HEp-2 cell lines (68/83, 81.9%) and those lacking internalization ability (6/7, 85.7%) (p=0.401, z-score=-0.2516).

Statistically significant differences were recorded within the group of clinical strains, when analyzing biofilm formation based on the Carmeli score, namely Carmeli 1 (5/9, 55.6%) and Carmeli 3 (23/29, 79.3%), (p=0.032, z-score=-1.8516).

CONCLUSION

Staphylococcal strains may use biofilm formation as a method of persistence in nasopharyngeal colonization, whereas clinical strains tend to form biofilm to a lesser extent, particularly in immunocompetent patients (Carmeli 1). In patients with impaired immune status (Carmeli 3) however, biofilm formation remains a major issue leading to persistent or recurrent infections.

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Pathophysiology of the Portal Venous System in a High Pressure Regimen

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OBJECTIVE

To accurately and thoroughly depict the changes occurring in the portal venous system in the presence of a high intravascular pressure, regardless of the cause. To underline the most important mechanisms involved in the venous collateral vessels formation, and their predilection to specific anatomical locations.

MATERIALS AND METHOD

A number of 82 patients with portal hypertension were examined in our center between January 1st 2013 and December 31st 2014. Most cases (n = 71) were caused by liver cirrhosis, whether viral or toxical in nature, and a small number of patients presented with portal hypertension caused by congestive heart failure (n = 3), hepatic vein thrombosis (n = 3), hepatitis (n = 2), or other causes. The patients were investigated by Computed Tomography (CT) and Magnetic Resonance Imaging (MRI), with specific contrast administration. The CT machine is a 64 MultiSlice Siemens Emotion, while the MRI installation is a 1.5T Siemens Avanto. The images were interpreted on a SyngoVia 3D advanced visualization platform. Written consent was obtained from all patients and our clinic's Ethics Committee approved the study.

RESULTS

All the investigated patients showed signs of portal hypertension, whether splenomegaly, ascites or portal axis dilation. Collateral vessels were present in about 90% of cases (n = 74), and were classified according to the anatomical compartment where identified. Correlations between literature studies on portal venous pressure, hydrodynamics and molecular regulation of blood flow were tested against the imaging findings. Neither the largest number of collaterals, nor the overall size of the collateral circulatory bed seem to correlate with the degree of liver dysmorphism, suggesting that a metabolic equilibrium of vasodilators and vasoconstrictors, hyperdynamic circulation, as well as the levels of angiogenic factors in the circulation could play a key role in collateral vessels development.

CONCLUSION

Portal hypertension demonstrates similar manifestations, including collateral vessels formation, regardless of the cause. The mixed results obtained in the effort of reducing portal pressure with pharmacologic agents can be caused by the complex mechanisms which regulate the portal resistance and flow. Insight into the physiology of the portal venous system in normal conditions, as well as in a high pressure regimen can prove useful to a better understanding of the processes involved, and hold the key to further research in the field.

Best Management in Non-Severe HTN at 34-37 Weeks Gestation: Immediate Delivery versus Expectant Monitory

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INTRODUCTION

There is little evidence to guide the management of women with hypertensive disorders in late preterm pregnancy. We investigated the effect of immediate delivery versus expectant monitoring on maternal and neonatal outcomes in such women.

MATERIAL AND METHOD

We did an open-label, randomized controlled trial, in 3rd Obstetrics-Gynecology Clinic of University Emergency Hospital, Bucharest. Women with non-severe hypertensive disorders of pregnancy between 34 and 37 weeks of gestation were randomly allocated to caesarean section within 24h (immediate delivery) or a strategy aimed to prolonging pregnancy until 37 weeks of gestation (expectant monitoring). The primary outcomes were a composite of adverse maternal outcomes (eclampsia, HELLP syndrome, placental abruption, thromboembolic disease, pulmonary oedema, or maternal death) and neonatal respiratory distress syndrome, both analysed by intention-to-treat.

RESULTS

Between February 1, 2014, and February 1, 2015, 71 women were invited to participate and were assigned to immediate delivery (n=36) or expectant monitoring (n=35). The composite adverse maternal outcome occurred in 1 (2.7%) of 36 women allocated to immediate delivery versus 4 (11.4%) of 35 women allocated to expectant monitoring (relative risk RR 0.36, 95% CI 0.12-1.11; p=0.069). Respiratory distress syndrome was diagnosed in 3 (8.3%) of 36 neonates in the immediate delivery group versus 1 (2.8%) of 35 neonates in the expectant monitoring group (RR 3.3, 95% CI 1.4-8.2; p=0,005). No maternal or perinatal deaths occurred.

CONCLUSION

Expectant monitoring results in better short-term outcomes for newborns than immediate delivery in women with non-severe hypertensive disorders at 34 to 37 weeks' gestation. Immediate delivery after 37 weeks reduces the risk of adverse maternal outcomes in women with mild gestational hypertension or pre-eclampsia with no effect on neonatal outcomes. So routine immediate delivery does not seem justified and a strategy of expectant monitoring until the clinical situation deteriorates can be considered.

Keywords: pregnancy, hypertensive, immediate delivery, expectant monitoring

Postpartum Hemodynamic Monitoring by Impedance Cardiography in Vaginal Delivery versus Cesarian Section

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INTRODUCTION

Impedance cardiography represents a non-invasive hemodynamic method with a long history. It is used in some medical fields and lately it was applied to monitor treatment in patients with gestational hypertension and preeclampsia.

MATERIAL AND METHODS

We realized a prospective study in which 20 patients were included during the first 48 hours after delivery. They formed two groups: 10 patients after vaginal delivery and 10 patients after caesarian section. All patients were evaluated with impedance cardiography.

RESULTS

In our study were included only healthy patients. There were excluded patients with cardiovascular disease, gestational hypertension, preeclampsia, diabetes, renal or neurological disease. We also excluded the patients with placental pathology or severe bleeding during delivery. We observed that in our study base impedance was decreased in patients after caesarian delivery compared with vaginal delivery but with no statistical significance. Systemic vascular resistance was similar for both categories (1127 dyne.sec.cm-5 for vaginal delivery and 1108 dyne.sec.cm-5 for C section). Heather index didn't registered important changes between the two groups. Heart rate was significantly increased in patients with C section (109 beats/minute) compared with the ones after vaginal delivery (86 beats /minute) with p value=0,003.

CONCLUSION

Impedance cardiography revealed the hemodynamic profile in the postpartum period. Heart rate is the only parameter modified between patients with vaginal and caesarian delivery.

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Socio-Economic Barriers in the Heart Failure Patient's Management

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OBJECTIVES

Does the social and economic status of the heart failure patient impair its treatment, and, if so, are there any viable solutions? The aim of the present study was to detect these possible socio-economic barriers and to find a coherent "rescue" strategy.

MATERIALS AND METHODS

We included in our study a number of 563 heart failure patients with the following demographic characteristics:

- mean age 72 +/- 11 years
- 52,8 % men
- 42,7 % urban population

For each patient, we documented a series of parameters:

- the amount of knowledge and understanding of the illness
- the socio-economic status
- the autonomy level
- the instruction level
- the rate of recognition of signs and symptoms of disease decompensation
- the dietary intake of salt
- the extent of compliance to non-pharmacological and pharmacological treatment.

We developed questionnaires for patients and/or their caretakers.

The database thus formed was statistically analyzed by SPSS.

RESULTS

1. Social status: 72.3% had family they lived with; 27.7% lived alone.

2. Economic status: 74.1% were retired with an average monthly income of about 240 lei.

3. Autonomy level: 51.4% were independent; 10.2% had special caregivers (outside the family); 31.4% needed extra help but didn't have any.

4. Education level: 6.7% had university education; 37.4% had secondary education; 47.8% primary education; 8.1% no education.

5. Heart failure treatment: 17.9% were prescribed 1-3 drugs/day; 70.6% had more than 4 drugs/day; the rest (11,5%) had no prescription.

6. Recognition of heart failure signs: 48.7% of patients and 29.3% of caretakers did not know what heart failure was; 64.2% of patients and 57.1% of caregivers did not notice the signs of heart failure; 67.2% of patients and 31.8% of caretakers ignored the signs of cardiac decompensation.

7. 74.3% of patients and 21.4% of caregivers did not understand the importance of dietary salt restriction.

CONCLUSIONS

1. Heart failure patients are often elderly, retired and with poor socio-economic statuses.

2. Most heart failure patients have low levels of instruction.

3. A large number of patients undergo complete therapeutic regimens without being aware of their purpose.

4. Almost half of the patients don't understand their disease well enough and aren't compliant to treatment.

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Epicardial Left Ventricular Lead in Cardiac Resynchronization Therapy

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BACKGROUND

It is estimated that 1/3 of patients treated with Cardiac Resynchronization Therapy (CRT) are nonresponders. This is due (~10% of cases) to the absence of an appropriate vein tributary to the desired left ventricular (LV) wall. Surgical implant options, including LV endocavitary transseptal LV lead placement, surgical endocaviatry placement via LV apex and epicardial implantation via thoracotomy, can be used.

OBJECTIVE

To analyze the evolution of four surgically resynchronized patients by using epicardial LV lead placement.

The standard endocavitary LV lead implant failed in absence of any appropriate coronary sinus derived veins. The patients were treated in the last two years (2013-2015).

METHOD

There were three men and one woman, aged 36, 42, 56 and 81, with estimated LV ejection fraction (LVEF) range 15-35%. All patients fulfilled cardiac resynchronization criteria and standard endocavitary LV lead placement was first intended. LV lead was later surgically placed in the desired position (postero-lateral LV wall) through left lateral thoracotomy. The only complication during the procedures: the 81 years old man experienced sustained ventricular tachycardia and ventricular fibrillation when suturing the epicardial lead – he was electrically cardioverted to sinus rhythm.

RESULTS

All four patients were successfully surgically resynchronized. There were no differences in early post-surgery evolution between patients. During follow-up (3, 6 and 12 months) all patients improved LVEF by ~9,25 % [6- 15] and functional status significantly increased (at least one NYHA class). The LVEF improvement was first noticed after 3 months in one patient and after 6 months in the others. No other complications were noticed. The low LVEF improved less than elevated LVEF.

CONCLUSIONS

Surgical technique is an option when standard lead implant fails, especially in young, high probability responders, well selected patients. Despite having no risky/major open heart surgery, patients may have some complications as they have a very low LVEF and heart failure. The procedure has the advantage of placing the LV lead in the "ideal" area of the left ventricle, but the disadvantage of an open chest surgery. In the future, newer, less invasive techniques such as thoracoscopy derived procedures or robotic assisted procedures may improve outcome and reduce risks.

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Evolution of Patients with Systemic Sclerosis and Other Autoimmune Diseases

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AIM

Systemic sclerosis (SSc) is a chronic autoimmune disease that involves many organs and systems, being one of the most heterogeneous diseases of the spectrum of connective tissue disorders and it is known that it may associate with other autoimmune diseases (AID). In this study we aim to evaluate patients with SSc and AID, focusing on the cutaneous involvement.

MATERIALS AND METHODS

We performed a retrospective study by reviewing the charts of all SSc patients, diagnosed according to ACR 1980 criteria or the ACR/EULAR 2013, who were evaluated between Jan 2005 and May 2014 in the Cantacuzino Hospital Bucharest, Romania. Patients were investigated according to EULAR recommendation, including modified Rodnan Skin Score (mRSS). Data of all patients were collected from the electronic database of the hospital and the statistical analysis was made using the IBM SPSS 20.0 software.

RESULTS

144 patients with SSc were included: 88.8% females, 66.6% with the limited cutaneous subset of disease (lcSSc), mean age 53.91± 12.75 years, mean disease duration at study enrollment 5.09 ±10.5 years and a mean follow up time of age 3,70±2.64 years.

Prevalence of the AID in the SSc cohort was 19.4%, patients with lcSSc being more prone to associate other AID (p=0.001). We noted a tendency towards less interstitial lung disease (p=0.056) and less digital ulcers (p=0.081) in patients with SSc and AIDs. Comparing the mRSS for each year of follow-up we observed that patients with SSc and AIDs tend to have lower values of the mRSS in comparison to dcSSc and lcSSc patients (4.7 vs 13.1 and 5.4 for the first 5 years of follow-up and 3.3 vs 5.8 and 5.3 for the next years).

CONCLUSION

Patients with SSc and AIDs tend to have a better outcome then the ones without this association. mRSS remains stable across the years in patients with SSc and AID, with lower values than the SSc patients.

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Antalgic Treatment Efficacy in Moderately-Severe and Severe Acute Pancreatitis

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BACKGROUND

This study focused on the analysis of the therapeutic approach for pain treatment of moderately-severe and severe acute pancreatitis in „Sf. Pantelimon" Emergency Hospital Bucharest.

METHODS

We retrospectively analyzed 123 patients admitted and treated in our hospital between 2013 and 2014. 63 of them underwent a surgical intervention. The inclusion criteria was the diagnostic of moderately-severe or severe acute pancreatitis, according to the web based "virtual" consensus conference from 2012 (modified Atlanta criteria).

RESULTS

88 patients presented with moderately-severe acute pancreatitis and, respectively, 35 patients with the severe form. The most frequent etiology was the toxic one, an association with alcohol consumption was observed at 76 patients (61.8%). Non-steroidal anti-inflammatory drugs and tramadol proved their efficacy at 71.6% patients with moderately-severe pancreatitis, whereas 82.8% patients with severe form required opioids. ($p<0.05$) The duration of drug administration was significantly shorter in those having moderately-severe acute pancreatitis (mean 1.6 weeks), compared to those having severe acute pancreatitis (3.7 weeks) ($P<0.05$). Surgery was performed for 25 patients with moderately-severe acute pancreatitis and 17 patients with severe pancreatitis.

CONCLUSION

Patients with severe acute pancreatitis required more frequent and for a longer period an opioid treatment as pain management compared to those with moderately-severe form.

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New Hydrazinecarbothioamides and 1,2,4-Triazoles as Potential Antimicrobial Agents

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PURPOSE

Bacteria that develop resistance to antibiotics are one of society's greatest future threats and are having a major impact on our ability to use various medical treatments. For that reason, obtaining new types of antibacterial agents is a very important task. In this work, we reported the synthesis of new hydrazinecarbothioamides and 1,2,4-triazoles bearing 5H-dibenzo[a,d][7] annulene moiety and evaluated their antimicrobial activities.

MATERIAL AND METHODS

The new hydrazinecarbothioamides were synthesized using classical procedures, starting from 2-(5H-dibenzo[a,d][7]annulen-5-yl)acetohydrazide. Cyclization of hydrazinecarbothioamides in NaOH solution afforded the corresponding 1,2,4-triazoles-3(4H)-thiol. The newly synthesized compounds were characterized by IR, 1H NMR, 13C NMR and elemental analysis. Antimicrobial activities of some compounds were evaluated against *Staphylococcus aureus ATCC 25923, Pseudomonas aeruginosa ATCC 27853, Escherichia coli ATCC 25922, Bacillus subtilis ATCC 6663, Salmonella tiphimurium ATCC 14028, Shigella flexneri ATCC 12022, Candida albicans ATCC 90028.*

RESULTS

The new hydrazinecarbothioamides present two conformational isomers (axial and equatorial), which are interconvertible by middle ring inversion. Cyclization of hydrazinecarbothioamides in NaOH solution afforded the corresponding 1,2,4-triazoles-3(4H)-thiole which were separated as pure axial isomers. The preliminary results of antimicrobial activities indicated that the tested compounds exhibited a moderate or low activity against tested strains.

CONCLUSIONS

In conclusion, in this paper we described the synthesis, spectral characterization and antimicrobial activity of new compounds possessing the 5H-dibenzo[a,d][7]annulene moiety from hydrazinecarbothioamides and 1,2,4-triazole class.

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Transoral Excision of a Large Parapharyngeal Tumor – Case Report

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AIM

Parapharyngeal space tumors are difficult to approach surgically due to multiple elements of vital importance situated in this region. When minimally invasive approach is intended, surgical risks are higher. The authors present a case of a solid, large tumoral mass situated in the parapharyngeal space, treated by transoral surgery only, with transoral – transnasal endoscopic control.

MATHERIAL AND METHOD

A clinical case of a large parapharyngeal space tumor diagnosed and treated in the Institiute of Phonoaudiology and Functional ENT Surgery "Prof. Dr. D Hociota", Bucharest

RESULTS

Complete tumoral ablation is achieved, with minimal damage and full recovery of the patient

CONCLUSION

Transoral approach of parapharyngeal space tumors with close endoscopic control may be sufficient for full excision of tumoral masses with minimal damage.

Keywords: parapharyngeal space, surgical approach, transoral, endoscopy

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Anxiety as a Cardiovascular Risk Factor in Systemic Lupus Erythematosus

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BACKGROUND

Several mood disorders are more common in women with lupus than women in the general population. About 7-24 % of patients with systemic lupus erythematosus (SLE) suffer anxiety which significantly affects both their physical and emotional quality of life (QoL). Objective of this study was to evaluate anxiety as a cardiovascular risk factor in patients with SLE.

METHODS

We examined 84 consecutive patients with SLE who met ACR criteria in 1997. Age limits ranged from 18 to 69 years, mean age was 32.02 ± 1.3 years. Anxiety syndrome was evaluated by the Hamilton Anxiety Scale (HAS), includes 14 items, each scoring from 0 to 4. The total score ranges between 0 and 56. A score <5 indicates lack of anxiety, between 6 and 14 mild anxiety and - 15 points a clinically significant level of anxiety. This scale assess the presence and intensity of different item based on the patient's condition in the last 3-7 days. Disease activity index was assessed by SLEDAI. Assessment of intima-media thickness (GIM) was detected by ultrasound examination of carotid artery. Lipid spectrum included determinations of total cholesterol, high density lipoprotein (HDL-Ch) and triglyceride levels by enzymatic photometry and low density lipoprotein (LDL-Ch) were calculated by Friedewald formula.

RESULTS

SLE patients showed neuropsychiatric disease in 64. 3% of cases, which were installed at various stages of the disease. Anxiety symptoms HAS>15 were present in 15.5% of the patients and were associated with depression (13.1%), cognitive disfunctions (13.1%), headache (9.5%), psychosis(1.2%). Anxiety score range has from 4 to 28 points. Thickeness of the GIM was established at 13 (36.1%) patients, ranging from 0,62-1,3 mm in patients with anxiety. Mean values of total CH (5.6 mmol/l) and LDL-Ch (3.3 mmol/l) were increased more marked in the group with depression. Among patients with SLE and anxiety were detected 36 (42,8%) patients with cardiovascular diseases. SLEDAI index values ranged from 4 to 44 points (mean 20,03 ± 9.2).

CONCLUSIONS

Our results show a 15.5% prevalence of anxiety in patients with SLE. Anxiety has been associated with high activity and cardiovascular disease in LES.

Simultaneous Analysis of Clopidogrel Bisulfate, Atorvastatin Calcium and Acetylsalicylic Acid in Tablets by HPLC Method

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INTRODUCTION

Multidrug therapy with clopidogrel, acetylsalicylic acid and atorvastatin is currently the treatment of choice in acute coronary syndromes and prevention of thrombosis. Drug-drug interaction between clopidogrel and atorvastatin has significant implication in antiplatelet therapy response.

OBJECTIVE

This paper presents a selection of optimum experimental mobile phases of the HPLC analysis with possible aplications in human plasma detection and simultaneous separation and identification of clopidogrel bisulfat, atorvastatin calcium and acetylsalicylic acid in tablets for quality control analysis.

MATERIALS AND METHOD

The cromatographic analysis was carried out using a ThermoFinnigan Chromatograph with UV detection and separation on an HDS Hypersil c_18 column. The elution was isocratic with mobile phase consisting in mixtures of acetonitrile, methanol and buffer 0.01 M KH_2PO_4 pH adjusted to 2.6 with 85% orthophosphoric acid.
Chemicals were represented by clopidogrel bisulfat, atorvastatin calcium and acetylsalicylic acid standards with high purity. The stock solutions of all three analytes were prepared at a concentration of 100 μg/ml in mobile phase. Spiked calibration standards have been prepared with all three analytes together in the concentration range 0.03-10 μg/ml. The quality control samples used in the accuracy and precision evaluation were spiked at the levels: 0.1, 0.05, 0.005 μg/ml.

RESULTS

Preliminary tests were performed to select optimum conditions for simultaneous separation of all three analyes such as mobile phase composition and proportion and pH presented in Table 1.A satisfactory separation of all three drugs was achieved with a mobie phase of buffer 0.01 M KH_2PO_4 (pH 2.6):acetonitrile: methanol 20:40:40 v/v/v at flow rate of 0.8 ml/min. Better separation of the peaks is presented in Figure 1. The proposed method was validated for linearity, precision and accuracy.

CONCLUSION

The validated method can be successfully used for simultaneous quantification of clopidogrel, acetylsalycilic acid and atorvastatin either in combination or in single dosage form in

Mobile phase	pH	Resolution	Total Run (minutes)
KH_2PO_4:acetonitrile 50:50 v/v	3.30	2.15	20
KH_2PO_4:acetonitrile:methanol 20:40:40 v/v/v	4.30	2.5	10
KH_2PO_4:acetonitrile:methanol 30:30:40 v/v/v/	4	2	15
Methanol:acetontrile:water 50:20:30 v/v/v	5.40	1.75	10

quality control analysis. Various analytical conditions have been proposed for human plasma analysis.

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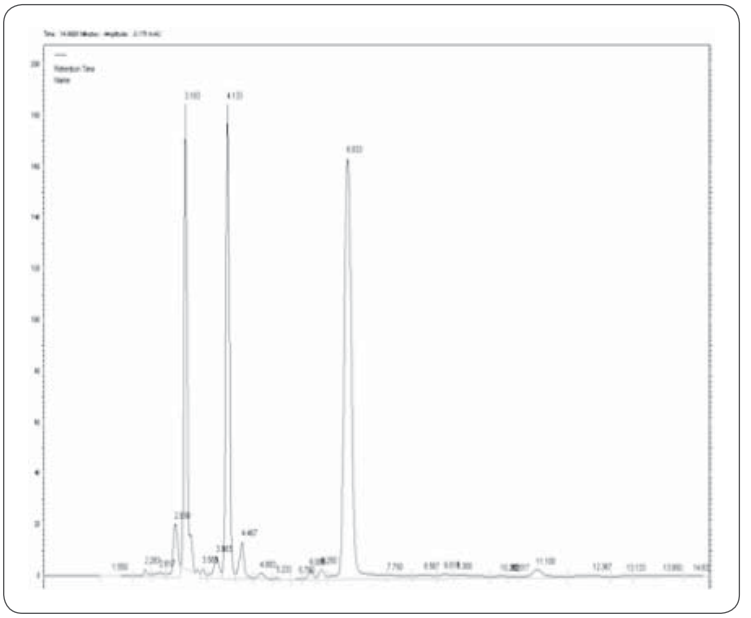

FIGURE 1. Representative chromatogram of a sample containing CLP.ATV and ASP obtained under the optimized chromatographic conditions (Flow=0.8 mL/min, Buffer KH_2PO_4:ACN:Methanol =20:40:40 v/v/v).

Gastric Neoplasms - Elements of Medical Statistics and Etiology

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BACKGROUND

The study aims to determine the frequency of disease in the digestive tract neoplasms in general.

MATERIALS AND METHOD

Etiological analysis of gastric cancer incidence in a period of 5 years (2010-2014) at surgical clinics of University Emergency Hospital Bucharest (UEHB). Etiological factors of disease location, hospitalization and mortality are statistically processed.

RESULTS

During 2010-2014 were hospitalized 5119 digestive tube neoplasms of which 811 (15.8%) were gastric cancer. Distribution showed a predominance of incidence in males 59.1%. After origin environment, the most frequent patients were from urban areas (65.6%). After age, most patients were in the decades VI, VII, VIII (approximately 83% of patients). Predominant localization of gastric cancers was in lower segment (50.43%). At the gastric body level were observed 21.21% of neoplasia, while in the upper pole were diagnosed 7.40%. In 20.96%, the disease was diagnosed in stage IV. Subtotal gastrectomy was performed in 16.46%, total gastrectomy in 16.76%, gastrectomies of necessity in 22.34%, upper polar gastrectomy in 3.66%. Palliative interventions were gastroenteroanastomosis (7.62%), gastrostomy of feeding (2.13%), local excision of the lesion (1.52%) and laparotomy of diagnostic (16.16%).

Hospitalization was 11.88 days. Mortality was 6.66% and 1.05% of digestive tract neoplasms hospitalized.

CONCLUSIONS

Gastric cancer accounted 15.8% of all digestive tube neoplasms, mostly in male. Most patients were from urban areas. Gastric neoplasms appear mainly in elderly. The average hospitalization was 11.88 days. Mortality was 6.6%.

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Iatrogenic Injuries of the Main Bile Duct During Laparoscopic Cholecystectomy for Acute Cholecystitis

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BACKGROUND

Severe inflammatory reshuffles in acute cholecystitis (A.C.) make anatomic orientation difficult and determine inadequate tehnical conditions for dissection. In this conditions main bile duct (MBD) iatrogenic injuries may become more frequent and more difficult to treat. Iatrogenic injuries of MBD represent severe complications who involve the surgeon's responsability and may generate an important postoperator morbidity and mortality.

METHODS

We followed MBD iatrogenic injuries which occurred during laparoscopic cholecystectomy (LC) for AC in University Emergency Hospital Bucharest (UEHB), First Surgical Clinic, between 1993-2013.

RESULTS

On a batch of 1921 patients treated by LC for AC were identified 4 cases of MBD iatrogenic injury. A complete sectioning of the MBD was performed in one single case. In 3 situations, the MBD injury was due to exaggerated tension exerted on the cystic duct or the gallbladder wall. No deaths were recorded during our study.

CONCLUSION

The MBD iatrogenic injury had an incidence of 0.20% on a lot of 1921 patients treated by LC for AC, lower than reported data.

Acknowledgement: This work received financial support through the project entitled "CERO – Career profile: Romanian Researcher", grant number POSDRU/159/1.5/S/135760, co-financed by the European Social Fund for Sectoral Operational Programme Human Resources Development 2007-2013.

Minimally Invasive Surgery for Pectus Excavatum in Children and Adolescents

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OBJECTIVES

The study aims to analyze the advantages of minimally invasive surgery in the management of patients with Pectus Excavatum.

MATERIALS AND METHODS

We performed a retrospective study on a group of 34 patients admitted and treated in the Pediatric Orthopedics Clinic, Marie Curie Hospital Bucharest, for a period of 10 years (2003-2013) with the diagnosis of Pectus Excavatum.

RESULTS

We studied 34 patients with a mean age of 15.4 years and a predominance of male patients. Clinical examination and imaging investigations led to the diagnosis of Pectus Excavatum. All patients were operated using minimally invasive techniques NUSS or Stratos. Postoperative evolution was favorable, registering only 2 cases with postoperative complications that required re-intervention and no deaths. The mean duration of hospitalization was 12.29 days.

CONCLUSIONS

Pectus Excavatum is one of the most common congenital deformities of the chest. Surgical treatment of these malformations involves various technical solutions, both traditional and minimally invasive way. Minimally invasive surgery is now the gold standard in resolving chest congenital deformities in children and adolescents with short duration of hospitalization, short surgical time and rapid postoperative recovery, with immediate aesthetic and functional results.

Acknowledgement: This work received financial support through the project entitled "CERO – Career profile: Romanian Researcher", grant number POSDRU/159/1.5/S/135760, cofinanced by the European Social Fund for Sectoral Operational Programme Human Resources Development 2007-2013.

A Case of Renal Osteodystrophy in a Patient with Chronic Renal Failure

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INTRODUCTION

Renal Osteodystrophy represents the totality of osseous structure anomalies which appear in chronic renal failure. From a clinical and paraclinical point of view, patients suffer from bone and joint pain and radiographically show bone deformities and frequent fractures, which indicate reabsorption of long narrow bones (the clavicles and phalanges). This affliction manifests itself with secondary hyperparathyroidism with calcium deposits in various tissues and organs, especially on the blood vessels, or individualized tumors.

MATERIALS AND METHODS

The patient, 56 years old, with a history of chronic renal failure that began 7 years ago, under dialysis for 3 years and also with a history of arterial stenosis of the internal femoral artery (calcium deposits), which was solved by inserting 2 stents, was admitted to the Orthopedic Ward of SUUB with a tumefaction and a minor dysfunction of the dorsal part of the left hand. Clinical examination showed a non-inflammatory aspect and a tumor of cca 5/5 cm; elastic, indolent, immobile in relation with the deep layers, without the embedment of the extensor tendons. Flexion and extension of the fingers (passive and active) had no limitation or pain. Radiologically, the aspect was of soft parts with multiple calcifications, without continuation on the carpals and metacarpals. The tumor was surgically removed.

Macroscopically, the formation was well delimited, easily removed from the surrounding tissues, lobulated, and with benign white calcium sediments when sectioned. The pathology diagnosis was tumoral calcinosis.

RESULTS

The postoperative evolution was favorable, resulting in the complete restoration of the movement of the fingers and a good cicatrisation.

A year after the orthopedic intervention, the patient was diagnosed with a calcification of the aortic valve, failing aortic valve, and extensive calcifications of the femoral and popliteal artery, with ragged ischemic phenomena which led to the amputation of the medial third of the left thigh. The patient needs valvuloplasty of the aortic valve with a prosthetic valve and aortocoronary by-pass.

CONCLUSIONS

Renal Osteodystrophy with secondary hyperparathyroidism is a condition which should be taken into consideration when managing patients with chronic renal failure under dialysis treatment. The severe complications, especially the cardiovascular ones must be tracked down early, evaluated and treated in order to assure a good life quality of the patient.

Tobacco Use among Healthcare Providers in a Romanian Psychiatric Ward

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OBJECTIVE

According to the World Health Organisation (WHO) the smoking epidemic is killing nearly six million people a year. WHO also predicts that by 2030 it will kill up to eight million people a year. Doctors and other healthcare providers are seen as major actors in the fight against smoking, not only by giving advice against it and smoking cessation counseling but also by their behavior. The aim of this study is to evaluate the smoking habit (prevalence and attitudes) of the health care providers form a psychiatric ward from a Romanian hospital.

METHOD AND MATERIALS

A cross sectional survey was conducted in two psychiatric wards from a Romanian psychiatric clinic (adults and pediatric psychiatry), all health care providers being eligible to participate. The data were collected using a self-administered questionnaire. The data collected were evaluated using EpiInfo 7 software and were summarized using percentages and confidence intervals.

RESULTS

There were 46 respondents to the questionnaire of which 43 (91.30%) were women and 4 (8.70%) men. The mean age of the respondents is 35.65 years old (median 33,50 years old). The distribution of medical personnel that responded to our questionnaire is as following: 54.35% medical residents (interns), 26.09% trained nurses, 13.04% nurses, 6.52% physicians. 43.48% of the respondents did smoke a cigarette during the last month, but only 34.78% are current daily smokers with more than 100 cigarettes smoked during their lifetime, while 6.52% are regular, but not daily smokers. Among the smokers, the mean number of cigarettes smoked per day is 12.52(±6 cigarettes-day). Most of them smoke at the hospital (68.42%) and only 21.8% consider they might need medical assistance to quit smoking. In what regards the non-smokers (92.30%) agreed or strongly agreed with the unpleasant character of being exposed to second-hand smoking at the hospital. 84.62% of the non-smokers are usually taking attitudes against being exposed to second-hand smoking by either asking the smoker to smoke some place else, complaining about the smell, opening a window/door or leaving the place. 60.87% of all the medical personnel that responded to our questionnaire would agree to banning smoking in all public spaces (including pubs and restaurants).

CONCLUSIONS

According to WHO, 26.7% of the adult population of Romania were smoking in 2012. In our study 38.78% of all medical personnel are daily, regular smokers with more than 100 cigarettes smoked during their lifetime, a much higher rate compared with the general population, thus rising an alarm point. Even if medical personnel has a better knowledge of the undesired effects of smoking on the human body and the health status, there is a higher prevalence of tobacco use among health care workers; their smoking habits can interfere with their potential to be credible advisers regarding smoking cessation and may impede their ability to help patients to quit.

The Role of Hemoglobin as a Predicting Factor in Chronic Heart Failure

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OBJECTIVE

Chronic heart failure represents a complex syndrome which requires a comprehensive treatment in order to improve the quality of life and to avoid complications. Taking into consideration that many conditions can interfere with cardiac function and that anemia represents a rather common finding among patients diagnosed with heart failure, we aimed to identify whether there is a relation between the levels of hemoglobin and the severity of the disease.

MATERIALS AND METHODS

We realized a retrospective study by gathering data from a total of 308 patients who were admitted for heart failure to the Clinic Emergency Hospital Bucharest in 2014. The mean age of the patients included in the study was 70.5+/-13.35 years (+/-SD).

RESULTS

The prevalence of anemia (defined as hemoglobin concentration <12.5 g/dL) on admission was 42.85% for the entire group of patients, although prevalence varied from 35.71% in patients classified as NYHA II to 50.82% in those who were classified as NYHA IV.

We divided the patients into two groups, according to the presence or absence of the anemia, and we compared their evolution under treatment, focusing on the number of days spent in the hospital.

On average, patients spent a number of 12+/-5 (+/-SD) days in the hospital. In the anemia group, the average number of days of hospitalization was 9, with 22% of the patients spending more than 12 days in the hospital, while in the nonanemia group, the average was 8 days of hospitalization, with 18.18% of the patients spending more than 12 days in the hospital.

Comparing the anemia group to the nonanemia group, a high duration of hospital stay was associated with low hemoglobin concentrations (T-value=2.35, P-Value=0.0096). Moreover, the number of days of hospitalization was negatively correlated to the hemoglobin level for the entire group of patients, although the relation between the variables was weak (R=-0.039), most probably due to the small sample size.

CONCLUSION

Although larger studies are required to determine how strongly related anemia and the severity of chronic heart failure are, the present study underlines the idea that hemoglobin level might be an important predictor of the evolution of the disease and that an early correction of anemia would be indicated in order to achieve a more positive outcome in chronic heart failure.

The Anesthetic Management of Dapsone-Induced Methemoglobinemia in Weber-Christian's Disease

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INTRODUCTION

Dapsone represents a therapeutic alternative for patients diagnosed with panniculitis. Methemoglobinemia (MetHb) is a fearful adverse reaction in dapsone-treated patients. The diagnosis and early treatment of MetHb is essential, particularly in patients with imperative surgery indication.

METHODS

We report a case of a 38-year old female patient who had been priorly diagnosed with Weber-Christian's disease (idiopathic lobular panniculitis) for over 14 years, treated with 100 mg daily dapsone. On hospital admission, the patient presented severe dyspnea, marked fatigability, peripheral cyanosis and significant metrorrhagia. The initial examination showed an altered clinical state, the patient was somnolent, cyanotic, tachypneic, orthopneic, with 73% oxygen saturation and tachycardiac. Paraclinical investigations revealed a MetHb level of 38%, normocytic normochromic anemia with a hemoglobin of 8.8 g per dl, normal glucose-6-phosphate dehydrogenase (G6PD) and pro-brain natriuretic peptide values (pro-BNP), troponine and complement fractions (C3, C4) in between normal lab range, no inflammatory syndrome. Beside intensive therapy, methylene blue treatment was included. Although the patient presented important genital bleeding with imperative surgical demand, the intervention was temporized adding both local and systemic hemostatic agents to the supportive therapy. 48 hours from the initiation of treatment, the MetHb level decreased to a 10% level, with an improvement of neurological status together with regression of acute respiratory insufficiency signs. A total hysterectomy under general anesthesia as undergone. In the operating room, the patient presents a pulse-oximeter oxygen saturation of 90% and a MetHb level measured in arterial blood of 8.2%. Postsurgical treatment with methylene blue was continued, leading to a normalization of MetHb rate in the following 6 days. The patient was dismissed in the 8th day.

CONCLUSIONS

Considering the fact that MetHb can occur with standard dapsone dosage, regular monitoring imposes. On the grounds that the dapsone half time is very long, we suggest repeatedly administrating methylene blue in order to prevent Fe2-Fe3 oxidation. We consider that prolonged pre-operatory pre-oxygenation becomes essential for a patient suffering from MetHb, anemia and difficult airway access.

The Thin Line between Cervical Dysplasia and Invasive Cancer: a Histopathological and Epidemiological Study

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OBJECTIVE

Cervical squamous cell carcinoma represents the most common cause of genital cancer in countries with underdeveloped screening programs. The stage of cancer is preceded by anomalies such as cervical intraepithelial lesions (CIN) and dysplasia. The purpose of this study was to identify and analyze these intraepithelial lesions in comparison to the invasive ones, considering the histopathological aspects and the epidemiological characteristics.

MATERIALS AND METHODS

The non-invasive intraepithelial lesions were classified accordingly to WHO 2014 into low (LSIL, corresponding to CIN1) and high (HSIL, corresponding to CIN2 and CIN3) squamous intraepithelial lesions. We retrospectively studied a six month period, totalizing N=159 cases of women who underwent a hysterectomy surgery or biopsy sampling. We used paraffin embedded tissue and hematoxilin & eosin stained sections. In the cases where the grade of intraepithelial neoplasia was uncertain, immune staining for Ki-67 protein was performed. Staining for type IV collagen in the basal membrane also helped us to establish the grade of invasiveness.

RESULTS

From a total of 159 patients, 137 presented cervical squamous intraepithelial lesions: 37 % CIN1 (LSIL), with a slightly increased prevalence in women in rural area and those older than 35; 13% CIN2 and 8% CIN3 (total HSIL = 21%). 12% patients presented both types of lesions. Nearly 30% needed further immunostaining investigations for the grade of invasiveness or for the grade of lesion. From the total immunostained cases for the grade of dysplasia, 20 were classified as an advanced stage (Ki-67 positive), with the absence of type IV collagen expression in basal membrane.

CONCLUSION

This study confirms the higher incidence of dysplasia or carcinoma in women older than 35 and in those from rural areas, offering additional justification for regular check-ups and cancer screening tests. Supplemental staining, for Ki-67 and type IV collagen, proved to be reliable methods in elucidating the invasiveness presence and degree.

Urinary Lithiasis in Patients with Diabetes Admitted in an Urology Ward

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OBJECTIVES

The purpose of this observational, retrospective study is to analyze the particularities of urinary lithiasis in patients with diabetes admitted to Hospital Theodor Burghele within a period of 18 months.

MATERIALS AND METHODS

We analyzed a sample of 6910 patients admitted in Hospital Theodor Burghele, in the urology wards, from Jan 2013 until Jul 2014, for various urological disorders. In case of multiple admissions, we considered the first hospitalization of the patient. Study variables were age and sex of patients, the main discharge diagnoses, the number of days of hospitalization and the laboratory tests from the first day of hospitalization. It was analyzed the subgroup of patients who had a discharge diagnosis of urinary stones (kidney stones, ureteral or bladder lithiasis).

RESULTS AND DISCUSSION

In the total group of analyzed patients there were 16.52% (n = 1142) patients with diabetes. Patients with lithiasis were 36% (n = 2487), from who, those with diabetes were 13.1% (n = 325). 90.75% (n = 2257) of patients had kidney and ureteral lithiasis and 9.25% (n = 230) had bladder stones. Urinary lithiasis was the most frequent admission diagnosis (37.5% of nondiabetic patients, respectively 28.5% of patients with diabetes). Patients with diabetes and kidney or ureteral stones were statistically significantly older than those without diabetes (mean age of patients with diabetes was 60.09 years and of those without diabetes was 47.63 years) ($p < 0.05$) and they required a longer hospitalization than the non-diabetic (6.95 days versus 6.28 days) ($p < 0.05$). There was no statistically significant correlation between blood glucose at admission and the hospitalization period. Diabetic patients with urinary stones had a eGFR (estimated by MDRD2) lower than non-diabetic patients and the difference was statistically significant (61.7 ml / min / m^2, respectively 72.7 ml / min / m^2) ($p < 0.05$). There were no statistically significant differences between the frequency of urinary infections at admission in the group of diabetic patients, compared with nondiabetic patients group. Both patients without diabetes, as well as diabetics who presented leukocytosis at admission had a longer hospital stay, but the difference was statistically significant only in the group of patients without diabetes.

CONCLUSIONS

Urinary stones were found to be the most common cause of hospitalization, both among patients with and without diabetes. Diabetic patients who required hospitalization for urinary stones were significantly older than patients without diabetes and were hospitalized for a longer period. Patients with diabetes had an eGFR at admission (after MDRD2) significantly lower than patients without diabetes.

Clinical Study of the Bone Defects Treated Using Free Iliac Crest Bone Graft

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PURPOSE

The purpose of this study was to address the following clinical question: is reconstruction of the bone defect with a free iliac crest bone graft a viable treatment option?

MATERIALS AND METHODS

The authors implemented a study of patients diagnosed with a bone tumor, aseptic and septic complication after open fracture who were treated with segmental resection and reconstruction with an autogenous free iliac crest bone graft. The predictor variables were age, lesion size, localization, etiology, complications after surgery and the outcome variable was graft success determined by re-establishment of bone continuity.

RESULTS

Four patients with bone defect were treated with resection and immediate reconstruction with nonvascularized iliac crest bone grafts. The mean age was 38,25 years (range, 19 to 53 yr). The most common lesion type was septic and aseptic complication after open fracture (3 of 4) and all patients underwent reconstruction with autogenous free iliac crest bone graft. All patients had successful integration of the bone graft.

CONCLUSIONS

Using careful patient selection, treatment of bone defect with a nonvascularized free iliac crest bone graft from the iliac crest can be successful. In addition, the total treatment time from surgery to return to preoperative function depend of size of defect, etiology, localization. Therefore, this method of treatment is a viable treatment option and an alternative to reconstruction with vascularized bone flaps.

Keywords: bone defect, free iliac crest bone graft

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Public Policies and Decisional Transparency in Health

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As part of the good governance mechanism, the Ministry of Health develops regulations and public policies that ensure the integration of health in all national policies. In Romania there is a clearly established legal framework which allows civil society to interact with the public policy initiators for the purpose of their suitability to the realities and needs of implementers and beneficiaries. Using decisional transparency mechanism in adopting legislation has generated significant advances in understanding, involvement and participation of partners in health policy.

OBJECTIVES

Evaluation of decision-making mechanisms applied in developing and adopting normative acts and public policies at the Ministry of Health level.

MATERIALS AND METHODS

Documentary study in transversal approach based on public information from the website of the Ministry of Health and in its reports on the adoption of normative acts by the Ministry of Health for 2011-2015, supplemented with data from the website of the General Secretariat Government.

RESULTS

In the process of normative acts adoption, from 2011 to 2014, a number of 7063normative acts were adopted, of which 554 have been announced publicly. Percentage of recommendations received and included in these projects increased from 56% in 2011 to 77% in 2014. In the process of decision making from 2011 to 2014 were initiated by the Ministry of Health a total of 26 public debates. Also, the number of participants in 2014 was twice comparing to 2011 figures. During these debates percentage of observations and recommendations included in decisions increased from 57.6% in 2011 to almost 70% in 2014. Since the beginning of 2015 Ministry of Health initiated 14 normative acts projects and has already announced 11 public debates.

DISCUSSION AND CONCLUSIONS

Although have been recorded efforts for improving transparency of decision-making, there is still place for better collaboration between all actors. Study results reveals that often political factors still considers the public consultation process temporal constraint and, by the other hand, civil society is not aware of powerful mechanisms they have of their side. Transparency and openness of this process might contribute to increase the public participation, involvement and implementation support from all affected parties.

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Comparative Study of the Incidence of Osteoarthritis of the Shoulder after Surgical and Conservative Treatment for Instability

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INTRODUCTION

Despite the high incidence of shoulder instability in the general population, there are few studies on the association between shoulder instability and the development of secondary osteoarthritis.

PURPOSE

The aim of our work was to compare the development of degenerative changes of shoulder after both conservative and operative treatment for instability.

MATERIAL AND METHODS

The study included 98 patients with anterior shoulder instability treated between 2010 and 2015 in the Clinic of Orthopedics and Traumatology - University Hospital of Emergency. According to the treatment method applied, they were divided into two groups. The first group: 48 patients who underwent surgery and the second group: 50 patients with conservative treatment.

Comparative tracking results for assessing the occurrence of degenerative changes of the shoulder was performed at 4 years interval after the initial treatment by clinical examination, functional status using the Constant score and radiological examination. The results were verified statistically using a t test (significant at $p < 0.05$).

RESULTS

The mean absolute Constant score was 88,97 in the surgery group and 71,23 in the conservative group, the p value ($p = 0.0155$) being statistically significant. Radiological changes of osteoarthritis were noted in 6 patients in the surgery group and in 18 patients in the conservative group.

CONCLUSIONS

Long term degenerative changes of the shoulder with anterior instability are well known complication. The incidence of developing osteoarthritis, however, varies significantly with the treatment method applied.

The Impact of Endothelial Dysfunction in the Pathophysiology of Hepatic Cirrhosis

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OBJECTIVE

Recent advances in the pathophysiological complications of liver cirrhosis (LC) have allowed for a more rational management of it and also for the stratification of patients into different risk groups that require different management. The most frequent complications leading to morbidity in patients with liver cirrhosis are of vascular origin. Among structural and functional changes of the liver in portal hypertension, recent pathogenic approaches show the initial involvement of the hepatic vascular structures. Endothelial dysfunction results in impaired vascular tone, increased intrahepatic vascular resistance and development of hyperdinamic circulation. High plasma levels of Endothelin 1 (ET-1) were consistently observed before severe complications occurance and even before any pathological abnormalities in the vascular tree can be demonstrated. This suggests that endothelial dysfunction is an early pathogenic event in the course of severe complications that occur in cirrhotic patients. In keeping with this concept, correction of endothelial dysfunction is associated with an improvement in the rates of complications in cirrhosis and, therefore, it is considered a useful therapeutic target.

The adequately functionning of sinusoidal endothelium maintains an anti-inflammatory, anti-thrombotic and anti-fibrotic milieu within the liver parenchyma. The presence of liver endothelial dysfunction has not been specifically investigated. In addition, whether endothelial dysfunction might occur earlier than other features of advanced liver disease (as it occurs in the peripheral circulation where endothelial dysfunction precedes the development of arteriosclerosis) is largely unknown. The aim of this study was the assessment of endothelial dysfunction by plasma hormonal peptide ET-1 in patients with liver cirrhosis Child-Pugh class A, B and C, in patients with esophageal varices, ascites and hepatic encephalopathy.

MATERIALS AND METHODS

To achieve the goal and objectives of the study we selected 80 patients with liver cirrhosis. The age of cirrhotic patients ranged between 31 and 70 years (mean age: 51.5 ± 1.56 years). All patients were divided into 3 groups according to Child-Pugh classification quantified. The first group (20 patients) with cirrhosis Child-Pugh class A, 2-nd group (20 patients) with cirrhosis Child-Pugh class B, 3-rd (40 patients) - Child-Pugh class C. The control group consisted of 20 healthy individuals (mean age 48.1 ± 2.4 years), including 10 men (50%) and 10 women (50%). The plasma endothelin (ET) levels were evaluated. Determination of ET-1 in serum was performed by ELISA method using Endothelin Assay Kit-IBL. The results of ELISA reaction were measured spectrophotometrically (OD 450 nm) by the immune analyzer.

RESULTS

According to a modified Child's classification which assesses the severity of liver cirrhosis, we compared different groups and found that the worse function of liver appeared to be associated with the higher ET-1 levels we observed. ET-1 values were significantly increased

in patients with liver cirrhosis Child-Pugh class C as compared with healthy subjects ($p < 0.001$) and in comparison between groups 1 and 3 ($p < 0.05$), 2 and 3 ($p < 0.01$).

It is important to note that high secretion of the largest currently known vasoconstrictor ET-1 capacity was detected in 20 patients with LC Child-Pugh class C and 20 patients with hepatorenal syndrom.

The pathogenetic schema of ascites includes the presence of peripheral arterial vasodilation in association with decreased intravascular volume, disturbance of kidney vascular irrigation and increased production of vasoconstrictor agents.

Our results also indicated that ET-1 increased obviously followed by the rise of ascites. In the group of patients with ascites and liver cirrhosis, plasma levels of ET-1 were significantly increased in patients with LC and ascites ($p < 0.001$) compared with the control group ($p < 0.001$) and in comparison with group 1 and 2. Increased levels of ET-1 in patients of LC and ascites (51 patients) were present if compairing with patients without ascites (29 patients) ($p < 0.05$).

In 51 patients with vascular decompensation of LC and esophageal varices (EV) (gr. I - 15 patients, gr. II-16 patients, gr. III - 20 patients) we detected high levels of ET-1 compared with the control group. In patients with LC and the EV gr. II, the values of ET-1 have been found higher compared with the control group ($p < 0.05$), which indicates the presence of endothelial dysfunction, regardless of EV.

In patients grouped according to the stage of hepatic encephalopathy (HE) (St. I-32 p, st. II-28 p st. III- 9p.) the level of ET-1 was significantly increased in stage II HE ($p < 0.01$) and stage III ($p < 0.001$) compared with the control group. Between cirrhotic patients with HE st. I and st. II, ET-1 values were already higher in those with HE st. II ($p < 0.01$), and endothelial dysfunction certainly perpetuated in st. III of hepatic encephalopathy (ET-1 values 17.56 6.34 pg / ml).

CONCLUSIONS

Endothelin 1, a hormonal vasoactive mediator produced in endothelial cells and smooth muscle cells has an important role in modulating vascular response to various stimuli, thereby being a key player in the pathophysiology of vascular disturbances in LC levels.

In our study, high values of ET-1 were already detected in 16 patients without ascites (14%) Child-Pugh class B. These data suggest that endothelial activation occurs before the development of ascites in patients with cirrhosis, as confirmed by studies of Curguniu A. and other authors. Our study revealed elevated levels of ET-1 in 51 (44%) patients with cirrhosis and ascites ($p < 0.05$).

We also found endothelial dysfunction in patients with esophageal varices (EV). Thus, in 51 (44.7%) patients with EV, ET-1 was significantly increased compared with the control group ($p < 0.01$). Circulating plasma levels of ET-1 have been shown to be higher in 37 (32.4%) patients with hepatic encephalopathy st. II and st. III ($p < 0.001$) compared with the control group. Therefore, endothelial dysfunction is amplified in advanced liver disease that was confirmed by clinical studies of other authors.

Undoubtedly, hepatic vascular endothelium is a unique body structure and endothelial dysfunction has implications in metabolic and vascular processes of the liver cirrhosis. In patients who have decompensated liver cirrhosis, the plasma ET-1 level obviously increased, indicating that ET is one of the active factors of vascular contraction. We reported that in patients with cirrhosis Child-Pugh class B and C the impaired vasodilator mechanisms with hypersecretion of ET-1 in serum is present. Endothelial dysfunction was noted in patients with severe clinical conditions such as the presence of esophageal varices, ascites and hepatic encephalopathy.

Pharmacotherapy for LC is aimed to decreasing both intrahepatic vascular resistance (increase bioavailability of vasoactive substances) and reducing elevated splanchnic blood flow. The importance of assessing the activity of ET-1 consists in further research of new therapeutic remedies to improve the evolution and prognosis of liver cirrhosis CH (administration of ET-1 receptor antagonists).

Breast Tumors - Diagnosis and Therapeutic Management

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OBJECTIVE

Breast cancer ranks as the most common form of cancer and second-leading cause of death due to cancer among women in the United States. In Romania, annually, about 4700 new cases of breast cancer are recorded. The incidence of breast cancer reaches the level of 46.2‰ women and mortality of 28.2‰. The incidence is unequal geographically, thus is suggesting that genetic factors but also external factors (lifestyle, hygienic-dietary regime and environmental factors) play an important role in genesis of breast cancer. The objective of this study was to analyse the diagnosis and therapeutic management of patients with breast tumors in our department.

MATERIAL AND METHODS

We conducted a retrospective study in the Emergency University Hospital Bucharest over a period of 2 years (January 2013-December 2014) in order to identify all patients hospitalized in the Department of Obstetrics and Gynecology diagnosed with mammary tumors in different stages. We detected the incidence of different types of mammary tumors and analysed the method used in enstablishing the diagnosis (clinical examination, mammography and fine needle aspiration puncture biopsy).

RESULTS

During the 2 years, 176 patients diagnosed with mammary tumors were admitted in our department. The incidence of breast tumors has decreased within one year (2013- 92 patients, 84 patients-2014). In 2013, 92 patients were diagnosed with a breast tumor - 28 patients (30.43%), with a malignant tumor, while the remaining 64 patients (69.56%) with a benign form of breast tumor. In 2014, a total of 84 patients were diagnosed with a breast tumor - 33 patients (39.28%) with malignant tumor, while the remaining 51 patients (60.71%) with a benign mammary tumor. The mean age of patients included in the study was 43.3 years. We observed that clinical examination and imagistic techniques play a major role in detecting a mammary tumor. Fine needle aspiration puncture biopsy is essential in detecting the histopathological type of breast tumor.

CONCLUSIONS

An accurate histopathological diagnosis is critical for the management of patients with breast tumors. Therefore establishing the subtype of breast tumor remains a real challenge for both gynecologist and pathologist.

Keywords: tumors, breast, therapy

The Importance of Ultrasound Evaluation in the Diagnosis of Ectopic Pregnancy

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OBJECTIVE

Correct diagnosis of ectopic pregnancy has become a real challenge, due to many diseases that can be viewed latero-uterine on ultrasound examination. Ectopic pregnancy is a gynaecologic emergency, failing to establish a correct diagnosis and rapid treatment can be fatal for the patient. The frequency of ectopic pregnancy varies between 0.58 and 1.3%. In the last 20 years the prevalence of ectopic pregnancy has increased with 60% due to the high incidence of acute salpingitis, the use of estro-progestative contraceptives and intrauterine devices. The objective of this study was to determine the role of ultrasound evaluation in the diagnosis of ectopic pregnancy.

MATERIAL AND METHODS

We retrospectively evaluated all patients, admitted in the University Emergency Hospital Bucharest, between the 1st of January and the 31th December 2014. We evaluated the role in establishing the diagnose of the following methods: clinical examination, transvaginal ultrasound, Doppler ultrasound and B-HCG in dynamic assessment.

RESULTS

145 patients hospitalized in our department were diagnosed with different locations of ectopic pregnancy: 25 patients with ovarian pregnancy (mean age 31.09 years), 119 patients with tubal pregnancy (mean age 36.9 years) and one case of abdominal pregnancy (25 years). Of these, 40 patients were operated after being diagnosed with ruptured ectopic pregnancy. All the patients included in our study were evaluated by ultrasounds.

CONCLUSIONS

Ultrasound examination is essential in the diagnose and management of patients with ectopic pregnancy. However, the ultrasound machine and sonographer's experience play a very important role in diagnosis.

Keywords: ectopic pregnancy, ultrasound evaluation, retrospective study

Infliximab Eyedrops Treatment on Corneal Neovascularization

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OBJECTIVES

The cornea is normally devoid of blood and lymphatic vessels. Corneal neovascularization is a condition that can develop in response to inflammation, hypoxia, trauma, or limbal stem cell deficiency and is the second cause of blindness worldwide. Current treatments for corneal neovascularization include topical corticosteroid and non-steroid anti-inflammatory medications, photodynamic therapy, laser photocoagulation, fine needle diathermy, and conjunctival, limbal, and amniotic membrane transplantation. New therapeutic options for diseases of the cornea and ocular surface are now being explore in experimental animals and clinical trials. In this study, we have investigated the efficacy of topical application of infliximab [tumor necrosis factor-α (TNF-α) monoclonal antibody for the treatment of corneal neovascularization in the rabbit model.

MATERIALS AND METHODS

Neovascularization was induced in 32 eyes of 16 rabbits by pressing a 2-mm diameter alkaline-coated applicator. Fourteen days after chemical burn, corneal neovascularization was confirmed and the subjects were divided into 4 groups of 8 rabbits: no treatment control (group I), group II, III and IV were treated with Infliximab eye drops of varying concentrations (1, 2, and 4 mg/mL) three times a day two weeks. Digital photographs of the cornea were taken before initiating the treatment and after 2 weeks. The pictures were analyzed to determine the percentage area of the cornea covered by neovascularization. All eyes were extracted and corneal sections were analyzed histopathologically.

RESULTS

In digital photographs, the neovascularized area was decreased in all 3 experimental groups (1, 2, and 4 mg/mL) compared with the control group (balanced salt solution). The median percentages of corneal neovascularization in groups 2, 3 and 4 (the study groups) were 63, 55 and 43% respectively and was significantly lower than in group 1 (72%). Histological examination showed markedly regressed new vessels and inflammatory infiltrate in treatment groups, but corneal stromal thickness and cellularity persist.

CONCLUSIONS

Tumor necrosis factor (TNF)-α, a well known pro-inflammatory cytokine, acts on the vascular endothelium by promoting vasodilatation, edema, and leukocyte recruitment, which are all commonly associated with the development of corneal neovascularization. Pharmacological TNF-α inhibition might represent an attractive therapeutic option.

The inflammation caused by a chemical burn can be minimized with Infliximab which penetrates the cornea and is safe to the ocular surface. We suggest that topical application of infliximab may be a useful treatment in ocular caustications.

This study demonstrates that topical administration of infliximab inhibit corneal neovascularization and decrease inflammation and fibroblast activity in a rabbit model of corneal neovascularization induced by alkali burn.

Melatonin Supression in Late Pregnancy Leads to Short-Term Memory Impairment in Adult Offspring

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OBJECTIVES

Melatonin is a pineal hormone, known as a circadian rhythm regulator, but also exibiting antioxidative and antimitotic activity. Melatonin role in development is suggested by the high rate expression of its' receptors in the nervous system of the embryo and fetus. Our study aims to evaluate the effects of melatonin deprivation in dams on the normal development of the nervous system in adult offspring.

MATERIALS AND METHOD

Melatonin suppression was achieved by continuous light exposure of pregnant Wistar rats between days 12-21 of pregnancy. Control dams were kept under a normal light/dark cycle (12:12).

Offspring are divided into 2 groups: control (C) group and melatonin deprived (MT) group. Adult male offspring were tested by the novel object recognition test (NOR), that assesses the rats' natural preference for novel objects in the testing environment and used to study memory deficits. Animals must retain memory of the sample objects presented during the familiarization phase that precedes the test phase, when one of the familiar objects is replaced by a novel one. The rats were recorded using EthoVision XT (Noldus) software for tracking and analyzing animal behavior.

The recorded parameter was objects exploration time in seconds for the novel and familiar objects during the familiarization and the test phases. Calculation of a discrimination index (DI) allows comparison between the novel and familiar objects: DI= (Tn-Tf)/(Tn+Tf), where Tn is the time spent exploring the novel object and Tf is the time spent exploring the familiar object.

RESULTS

In the short-term memory trial, the mean exploration time/objectfor the C group were Tn= 24.61s and Tf= 16.14s and for the MT group, Tn= 3.99s and Tf = 21.87 s. Tn for C group was significantly higher than Tn for MT group (p=0.02). DI for C group shows that 6/8 rats had a preference for the novel object, compared to MT group in which only 1/8 had a preference for the novel object. DI for the C group shows a statistically significant difference of preference for the novel object (p= 0.02).

In the long- term memory trial, the mean exploration time/object for the C group were Tn= 8.39s and Tf= 8.68s and for the MT group, Tn= 5.17s and Tf = 12.54 s. Tn was higher for the C group than for the MT group, but the results showed no statistical significance. DI for the C group showed that 5/8 rats preferred the novel object compared to only 2/8 rats in the MT group.

CONCLUSIONS

The present results show that the MT group exhibited short term memory impairment compared to the C group. These findings suggest that intrauterine melatonin deprivation interferes with the embryo-fetal development of the nervous system components involved in memory.

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Nonalcoholic Fatty Liver Disease Correlates with Cardiovascular Disease in Dialysis Patients

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BACKGROUND AND AIM

Nonalcoholic fatty liver disease (NAFLD) has been considered to be the liver manifestation of metabolic syndrome, and might have a role in the development of atherosclerosis. Recent data support the hypothesis that NAFLD itself might contribute to a higher risk of CVD, independent of other prognostic risk factors. The aim of our study is to investigate the association of NAFLD and increase risk of adverse CVD events in dialysis patients.

METHODS

We enrolled 95 ESRD patients (pts) on chronic dialysis, in whom we recorded medical history (dialysis vintage, ischemic heart disease, myocardial infarction, arrhytmia, stroke), demographics (waist circumference, body mass index BMI), inflammatory biomarkers and profile of mineral metabolism markers. Ultrasound criteria for NALFD included hepatorenal echocontrast, liver parenchymal brightness, deep beam attenuation, vessel blurring. Severity of liver steatosis/steatofibrosis was graded on a 0-4 scale. Carotid intima-media thickness (IMT) was determined as surrogate marker of increased cardiovascular risk. Body composition determination was performed using InBody S10 device for bioimpedance analysis; we recorded body fat mass, fat free mass, percent of body fat.

RESULTS

NAFLD as identified by liver ultrasound was present in 71.6% dialysed pts; most of pts (66.4%) presented grade 1-2 fatty liver; only 1 patient had steatofibrosis. Pts with NAFLD had higher BMI (34.1 ± 11.6 vs 28.7 ± 6.1, $p<0.05$), higher serum glucose (137 ± 75 vs 105 ± 25, $p<0.05$), higher percent of body fat (34.1 ± 11.6 vs 24.8 ± 8.9, $p<0.05$) and lower corrected calcemia (9 ± 0.7 vs 9.4 ± 0.8 mg/dl, $p<0.05$). Percent of cardiovascular events was higher in pts with NAFLD: ischemic heart disease (79.4% vs 63%, $p<0.05$), myocardial infarction (8.8% vs 3.7%, $p<0.05$), stroke (7.4% vs 3.7%, $p<0.05$). Average IMT was higher in NAFLD pts: 0.104 ± 0.046 vs 0.085 ± 0.022 mg/dl ($p<0.05$).

CONCLUSIONS

Dialysis patients with NAFLD present more carotid atherosclerosis and more frequent adverse CVD events than patients without NAFLD.

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Circulating Fetuin-A Correlates with Ventricular Function in Chronic Kidney Disease Patients

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BACKGROUND AND AIM

Fetuin-A acts as a potent inhibitor of mineralization and protects against atherosclerotic calcification in chronic kidney disease (CKD). Low fetuin levels are associated with increased vascular calcification, cardiovascular mortality, and overall mortality in some studies of CKD and dialysis patients. In the present study we evaluate the association between Fetuin A, arterial stiffness, dipping status and ventricular function in CKD patients.

METHODS

We enrolled 48 CKD patients in pre-dialysis (7 pts CKD stage 2, 29 pts CKD stage 3, 12 pts CKD stage 4) and 16 controls. Fetuin A levels were measured using xMAP technology (Luminex® 200™). Echocardiography was used to assess the cardiac structure and function: sistolic and diastolic left ventricular (LV) volumes, LV mass index (LVMI), left atrial volume index (LAVI), LV ejection fraction (LVEF), ratio of mitral velocity to early diastolic velocity of the mitral annulus (E/E`) and ratio between the early maximal ventricular filling velocity and the late filling velocity (E/A). Peripheral pulse wave analysis was performed using SphygmoCor device; we recorded pulse wave velocity (PWV), augmentation index (Aix), left ventricular ejection duration index (EjD%, ratio of the duration of systolic ejection to the total duration of a cardiac cycle), subendocardial viability ratio (SEVR% = DTPI/STPI, diastolic pressure time index divided by systolic pressure time index). Dipper pattern was evaluated by 24 hour ambulatory blood pressure monitoring.

RESULTS

Mean serum Fetuin A levels were lower in CKD compared with controls (0.5±0.16 vs 0.54±0.06 mg/l), and significantly ($p<0.05$) decreased when the renal function was more impaired (0.66±0.16 in CKD stage 2, 0.48±0.16 in CKD stage 3, 0.46±0.1 mg/l in CKD stage 4).

Mean levels of Fetuin A were higher in patients with PWV <12 m/sec (0.52±0.16 mg/l) compared with patients with PWV ≥ 12 m/sec (0.47±0.19 mg/l). Also, circulating levels of Fetuin A were significantly lower ($p<0.05$) in CKD patients with non-dipper versus dipper pattern (0.45±0.11 vs 0.53±0.17 mg/l).

As levels of Fetuin A increased (upper quartiles of fetuin A), LVMI and E/E` decreased. Levels of circulating Fetuin A correlated with LVMI ($p=0.018$), NYHA class ($p=0.029$) and severity of aortic regurgitation ($p=0.007$).

CONCLUSIONS

In our study, lower levels of fetuin A were associated with more advanced CKD. We found a link between Fetuin A and cardiac function in CKD patients, as LV diastolic dysfunction assessed by E/E' ratio and NYHA class correlate with circulating Fetuin A levels. Although lower levels of Fetuin A were found in non-dipper pts and in pts with higher PWV, no correlation was demonstrated with dipper status and arterial stiffness parameters.

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Particular Aspects in the Evolution of Elderly Patients Included in Dialysis Program

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AIM OF THE STUDY

We assess outcome in patients (pts) older than 65 years (yrs) incident in dialysis.

METHODS

We included 150 elderly pts (males = 70, mean age = 73 ± 5.6 yrs) incident in dialysis between January 2009 - January 2014, monitored for at least 6 months after dialysis started or until death. All pts were investigated at admission for uremia complications. Morbidity, mortality and causes of death were evaluated.

RESULTS

30 pts (20%) were 75 -79 yrs, and 20 (13.3%) were ≥80 yrs. Nephrology referral vintage was 13.6 ± 23.6 months. Etiology of renal failure was represented mostly by hypertensive nephropathy (42%) and tubulointerstitial disease (20.7%). Most frequent uremia complications at admission were cardiac failure (51.3%), arrhytmia (34.7%), pleural efusion (28.7%), neurologial disturbances (28%), digestive manifestations (46.7%). 98.7% pts were anemic (mean Hb = 8.5 ± 1.7 g/dl) and 53.3% pts were hypoalbuminemic (mean serum albumin = 3.4 ± 0.6 g/dl). Also, 88.7% pts presented electrolytic disturbances, 55.3% pts had metabolic acidosis. Hemodialysis (HD) was the preferred method (68.7% pts); central venous catheter (CVC) was used in 89 pts (59.3%), while AV fistula (AVF) was used in 14 pts (9.3%); peritoneal dialysis (PD) was used in 47 pts (31.3%). None of the patients was transplanted during follow-up. We recorded 59 deaths (39.3%) during follow-up. Mean general survival was 20.8 ± 28.4 months. Causes of death were mostly cardiovascular events (50.8%), sepsis (10.2%), and unknown in 25.4% pts. Survival was similar stratified by dialysis procedure (19.7 ± 29.5 months in HD vs 23 ± 25.8 months in PD) used for dialysis initiation. Also, although lower in pts emergently initiated using CVC, survival was similar stratified by access type (18.8 ± 30.5 months for CVC vs 25.4 ± 22.6 months for AVF) used for HD initiation. Cox regression analysis identified the following factors influencing survival in elderly pts: multiple myeloma ($p=0.006$), hypoalbuminemia ($p<0.0001$) and presence of hemorrhagic syndrome ($p=0.05$) at dialysis initiation.

CONCLUSIONS

Elderly pts are referred late for nephrology care. Morbidity and mortality are high in elderly included in dialysis, especially from cardiovascular causes. As regards the dialysis modality, elderly can benefit both from HD and PD procedures, similar to younger pts.

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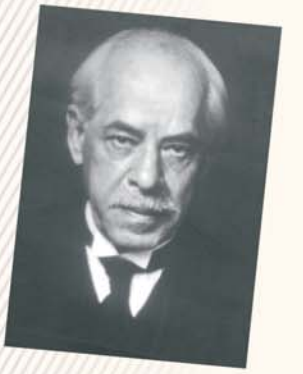

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