

Founded 1897 • New Series

Vol. CXX • Suppl. 1/2017 • October

# Romanian Journal of Military Medicine



REVISTA DE MEDICINĂ MILITARĂ

186<sup>ani</sup>  
1831-2017

7<sup>th</sup> Edition

*Carol Davila Central University Emergency  
Military Hospital National Conference*



October 11 – October 14, 2017

Bucharest

Journal included in Index Copernicus International, National Library of Medicine Catalog, Ulrich's Periodicals Directory database, OCLC WorldCat, Directory of Open Access Journals, Directory of Research Journals Index, Eurasian Scientific Journal Index, Scientific World Index, Science Library Index and Open Academic Journals Index.

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Romanian Journal of Military Medicine (RJMM) is included in Romanian College of Physicians Medical Publications Index and credited with 5 CME credits.

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Romanian Journal of Military Medicine, New Series, vol. CXX, Suppl. 1/2017, October  
ISSN-L 1222-5126; eISSN 2501-2312; pISSN 1222-5126

# RJMM

**Romanian Journal of Military Medicine**

Edited by the Romanian Association of Military Physicians and Pharmacists.



Founded 1897 • New Series

Vol. CXX • Suppl. 1/2017 • October

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## EDITORIAL

# The 7<sup>th</sup> Edition of Carol Davila Central University Emergency Military Hospital National Conference

Florentina Ioniță Radu

Dear partners, dear colleagues and friends,

We approach the starting line of the national, scientifically marathon known as National Conference of the "Dr. Carol Davila" University Emergency Central Military Hospital, event that succeeded this year, with the support of everyone involved, to celebrate its 7th Edition.

Since its beginnings, from the draft stage of the event, we envisioned it to be flexible but coherent, strong as institutional message, but sensitive and representative of the concerns, the mission and values of military medicine. That is why, now, we can talk about a solid form of cooperation and dialogue between experts from both military and civilian medical domain, and our partners in academical and university world.

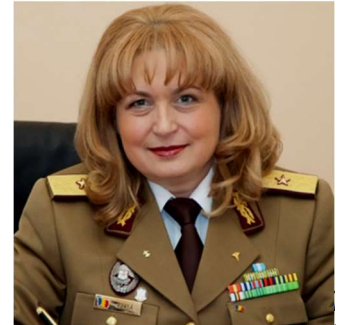
Alongside traditional collaborators, we intend this year to organize an event able to illustrate, in a definitory way, current standards defining the performance of our teams, but also the goals that we want to meet, on short and medium term. Unlike other scientific events, SUUMC National Conference brings together, first of all, the colleagues from National Defence Medical Corps, but also those from similar institutions pertaining the National Security System.

If last year's addressed theme has brought rise to a series of medical events, supported by the presentation of some recent diagnostic and therapeutic approaches from the high quality patient care pers-

pective, this year's Conference aims to come up with a blast new amplification and substantiation of new concepts applied in modern medicine, the concepts that will be debated in the framework of round tables, courses, workshops, interactive sessions and through broadcasts live.

As in every year, we are pleased to have with us as speakers, thought leaders from both Romanian and medicine from abroad, but also younger colleagues, who managed to impose, through their expertise, in the field of academic and scientific pursuits.

I wouldn't want to finish before I express the hope that all those listed above, but also relational history of us are strong arguments that will determine you to model your program, so can honor the invitation to participate in this suite of scientific events, in order to create together a new point of reference for Romanian medicine.



**RADU**

*Commander, Central Emergency  
Military Hospital, Ministry of  
National Defence, Romania  
Associate Professor, Titu  
Maiorescu University, Bucharest*



## ORAL PRESENTATIONS



## OP session infectious diseases, endocrinology

### Superbugs: clinical, epidemiological and therapeutical peculiarities

**B. Circiumaru**

**Background:** The antibiotic resistance became a global crisis, as the “superbugs”, resistant to nearly all current available anti-infectious treatments spread worldwide, causing a serious burden of morbidity and mortality.

**Is there anything we could do considering the actual situation and could we improve that by any means?**

**Materials and methods:** I ambispectively studied the multi-drug resistant infections in many hospitals in Bucharest, and I characterized the clinical evolution, the epidemiological patterns, and the therapy provided.

**I consulted the actual literature:** the treaties, the guidelines, as well as the quality internet resources and I tried to synthetized them.

**Results:** I described two forms of clinical evolution: unimodal-induced by out-hospital infections, and bimodal: characteristic for nosocomial infections.

**I emphasized the role of epidemiological tracking, and I discussed the therapeutically challenges, as there still are undefined optimal anti-infectious strategies. Finally, I suggested recommendations to improve the case management.**

**Conclusions:** The nosocomial infections are an unwanted reality, as the superbug’s presence is getting worse; thus, some actions are useful.

**Identifying those infections on: clinical, epidemiological and biological (e.g. antibiograms) grounds, the spreading of good medical practices as: routinely culture the patients admitted in the ICU’s, the epidemiological tracking to characterize the bacterial strains, and providing anti-infectious therapy according to the guidelines but, based on the clinical judgement, are the main measures that would improve the current situation.**

### Autoimmune diseases in women and infertility-short review and algorithm proposal

**A.E. Ranetti, Anca P. Cucu**

The reproductive axis is susceptible to various factors in both sexes, the immune-mediated processes interfering at various levels. Although immune infertility is described mostly in male, due to specific antibodies, autoimmune diseases in women are underestimated. The mucosal immune system in women is under hormonal control; also a periodic growth and remodelling is characteristic.

**Material and method:** Autoimmune endocrine diseases with a major impact on fertility include polycystic ovarian disease, occult primary ovarian insufficiency, premature ovarian senescence, multiple sclerosis, Hashimoto thyroiditis, Addison’s disease, type 1 diabetes mellitus, hyperprolactinemia, but also rare conditions such as lymphocytic hypophysitis, the resistant ovary syndrome or autoimmune polyglandular syndromes.

Also antiphospholipid syndrome or other factors (antisperm antibodies, antinuclear antibodies or anti gliadin antibodies) can result in infertility.

Endometriosis, a benign gynecological condition, carries out an autoimmune component in its pathogen, is linked to female infertility. We present a short review of autoimmune diseases effects on female fertility and we propose a diagnostic algorithm proposal.

### Metformin versus myo-inositol effects on ovarian morphology in women of reproductive age with PCOS

**Anca P. Cucu, A.E. Ranetti**

**Background:** Polycystic ovarian syndrome (PCOS) is the most common metabolically determined gynecologic disorder with an incidence of 4 to 184% in women of reproductive age. PCOS diagnosis is set based on Rotterdam criteria,



including hyperandrogenism, chronic anovulation and typical ultrasound appearance. The current ultrasound criteria include 12 or more follicles of 2-9 mm diameter in each ovary +/- increased ovarian volume.

**Material and method:** 20 non-diabetic women between 25-35 years old, with PCOS untreated prior to presentation, with a BMI >30 kg/m<sup>2</sup>, were included in a pilot study. Ovarian ultrasound (morphology, volume), BMI, FSH, LH, DHEA-S were evaluated before and after the treatment. 10 women were treated with myo-inositol along with diet (non-MET-group) and 10 started a 6 months therapy with diet and metformin administered daily on a weekly increased dose up to a total of 2 g/day (Met-group). None of the patients were on a meat and dairy free diet.

**Results:** The Met-group had a significant weight reduction and a decreased ovarian volume, as well as improvement of ovarian morphology compared to non-Met; ovulation was similar in both groups.

**Conclusions:** Metformin, a biguanide used in treatment of type II diabetes mellitus, as well as myo-inositol, could be for reducing ovarian volume and improvement of ovarian morphology. For an accurate compared efficiency of the two, further studies including larger cohorts of patients are needed.

### **The treatment with aromatase inhibitors and osteoporosis for women with breast cancer**

**Simona V. Lia, Adina Mazilu**

**Background:** Breast neoplasm is the first cause of female cancer mortality and early diagnosis leads to a favorable evolution.

Aromatase is an enzyme involved in the production of estrogen acting by catabolizing the conversion of Testosterone into Estradiol. Aromatase inhibitor (AI) therapy has shown superior efficacy compared to Tamoxifen in postmenopausal women and is quickly becoming the therapy of choice in this context. However, adjuvant AI therapy depletes residual estrogen and is associated with rapid bone loss and increased fracture risk.

Breast cancer patients receiving adjuvant AI therapy will require specialized management strategies to identify and treat patients at high risk for fracture. Randomized clinical trials in postmenopausal women indicate that bisphosphonates prevent bone loss and accelerated turnover associated with AI therapy and are a promising strategy for the prevention and treatment of osteoporosis in this context. Bisphosphonates, along with a healthy lifestyle

and adequate intake of calcium and vitamin D are the treatments of choice to prevent bone loss.

**Methods:** The current method of determining bone density and its resistance is DXA, a method especially used to track osteoporosis.

**Discussion:** Following a study of 120 women after treatment with AI, 29% were diagnosed with osteoporosis, 59% with osteopenia, and 13% with fractures.

**Conclusion:** Adjuvant hormonal therapy for a post-menopausal woman with receptor-positive breast cancer includes an aromatase inhibitor as initial therapy or after treatment with tamoxifen. Women with breast cancer and their physicians must weigh the risks and benefits of all therapeutic options because this could pose a risk of developing osteoporosis.

### **Large Cabergoline dose induced complete macroprolactinoma necrosis**

**Adina Mazilu, M. Mitrica, C. Nastase, A. Chirtes, M. Stefanescu**

**Introduction:** Large Cabergoline doses up to 3 mg/day were used to treat prolactinomas, especially those resistant to dopamine-agonist agents. They appeared to be safe, valvulopathy was seen more in patients that needed Cabergoline for Parkinson's disease treatment. Our previous experience included a malignant macroprolactinoma that was completely cured to empty sella syndrome after 24 months of Cabergoline 3.5 mg/week and transition from macro to microprolactinoma in a 20 years aged woman with clinical and biological remission.

**Material:** A 22 years male was examined prior to surgery. He had severe cachexia with gonadal, thyroid and GH deficiency, high prolactin levels.

**Method:** TSH, free T4, prolactin, FSH, LH, testosterone, cortisol levels were measured by ELISA immunoassays. Enhanced Gadolinium pituitary MRI revealed a large macroprolactinoma.

Cabergoline was started at 1 mg/week, associated with Levothyroxine 50 mcg/day and Testim gel 5 g/day.

**Results:** After 1 month prolactin levels were reduced, but not within normal limits. Dosage of Cabergoline was increased to 3.5 mg/week, 0.5 mg/day, for 4 months, then reduced again to 1 mg/week 1 months. MRI evaluation at 6 months showed complete tumoral necrosis with empty sella syndrome.

**Conclusions:** large Cabergoline doses for short-term treatment, with rapid escalation, might be beneficial in



macroprolactinomas, avoiding unnecessary surgery, especially in young patients. This might lead to a better control of macroprolactinomas, but large RCT are needed.

### **Malignant atrophic papulosis associated with stage IV thyroid carcinoma – case report**

**Mihaela Georgescu, D.A. Chiriță, V. Trifu, M. Dumitrescu, M.A. Jilea**

**Introduction:** Malignant atrophic papulosis (MAP; also known as Degos' disease) is a rare, multisystem obliterative vasculopathy of unknown etiology. It has a purely cutaneous variant and a systemic variant with cutaneous manifestations. Both have similar cutaneous eruptions.

**Case presentation:** We present the case of a 55 years old male patient that came for a consultation presenting with 2-15 mm scars with central, porcelain-white atrophic centres. Purely cutaneous MAP is a benign condition that can be life-long. Also, the patient had a stage IV thyroid cancer which was excised then treated with radiotherapy.

A skin biopsy revealed a wedge-shaped degeneration of collagen is present with a prominent interface reaction with squamatization of the dermoepidermal junction, melanin incontinence and epidermal atrophy. The patient was recommended Pentoxifylline 400 mg, 2 tbs daily and emollients on a daily basis.

After half of year the patient developed generalized peritonitis due to a postradial enteric fistula. He was operated with a very slow recovery.

The rest of the general examination was normal.

**Discussion:** Systemic MAP has a grim prognosis, but is not uniformly fatal. The cause of death is usually intestinal perforation, but in our case the patient was quickly operated. Unfortunately, no treatment has been shown to be effective in the treatment of MAP.

**Conclusion:** Our case represents the first report of such association, but most likely the finding is incidental. The patient's prognostic is affected due to the stage IV thyroid carcinoma.

### **Attention to melanoma! Clinical and histopathological aspects**

**Alexandra Calu, L. Eftimie, M. Curea, Florina Vasilescu, Liana Toma, Rodica Bulata, M. Dumitrescu**

**Introduction:** The incidence of melanoma, the most aggressive type of skin cancer has continued to increase over the past few years in our country, therefore starting with 2017 a National Electronic Registry for patients with melanoma will be created.

In this context, the paper aims to present some of the clinical and pathological features of malignant melanoma.

**Materials and methods:** For this purpose we studied the cases of malignant melanoma registred from 01 January to 31 July 2017 in the Pathology Department of Central Military Emergency University Hospital "Dr. Carol Davila".

Three subtypes of cases were characterized: primary cutaneous melanoma (the most common), uveal melanoma and metastatic melanoma.

We analyzed the distribution of cases by age, gender, location, clinical aspects and histopathological features (such as growth pattern, Breslow thickness - which is the most important prognostic factor for melanoma, depth of invasion - Clark level, ulceration)

**Conclusions:** During this short period, a high number of cases of malignant melanoma was registred therefore the clinicians and pathologists must realize the importance of this type of cancer and must be aware of its great clinical and pathological variability.

Most cases were diagnosed in men, with a peak of incidence around the sixth decade of life and commonly affecting the skin on the trunk. More than half patients have been diagnosed at an advanced stage of the disease, with an average value of the Breslow index of 3,92mm. This aspect suggest the importance of setting up some national screening programs for melanoma in an attempt to diagnose this disease in an early stage.



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## OP session emergencies, cardiology

### Hypertensive urgencies and emergencies

Alice E. Munteanu, Irina Florescu, Cristina M. Calcan

Arterial hypertension represents a worldwide health issue remaining the main cause of death. 1-2% of chronic hypertensive patients at some time will develop hypertensive urgencies or emergencies. Hypertensive emergencies can be defined severe elevation of blood pressure – SBP>180 mmHg and/or DBP>120 mmHg – in the presence of acute organ damage.

Acute coronary syndromes, dissecting aortic aneurisms, acute pulmonary edema, hypertensive encephalopathy, acute cerebral infarction, intracerebral hemorrhage, or acute arterial bleeding or eclampsia represent clinical conditions in which an immediate blood pressure reduction is needed to prevent the progression of target-organ damage.

The patient evaluation is crucial for identification of acute target organ damage. The first step is a complete history (with particular attention paid to pre-existing hypertension and comorbidities like diabetes mellitus, coronary artery disease and cerebrovascular disease) and an accurate physical examination (including fundoscopic examination), electrocardiogram, selected laboratory studies such as urinalysis, creatinine, urea, electrolytes, a full blood count, and a chest radiogram should be performed.

When a secondary form of hypertension is suspected a sample for plasma renin activity, aldosterone, and catecholamines should also be drawn. Further investigation which should be performed according to the clinical presentation are echocardiography, brain CT scan, abdominal ultrasonography, thoracic-abdominal CT scan, vascular ultrasound.

Cardiovascular events may occur in context of hypertensive urgencies and emergencies are myocardial infarction, stroke, acute heart failure, acute pulmonary edema, aortic dissection and arrhythmias.

Patients should be admitted to an intensive care unit for clinical surveillance and continuous BP monitoring. Aggressive treatment with parenteral drugs is the preferred approach.

In the presence of severe elevations of blood pressure identification of acute target organ damage is very important. Treatment should be started promptly in the emergency department. The initial goal of treatment is rapidly reduction of blood pressure, but a precipitous fall in

BP should be avoided.

### Involvement of ACE and HSPG gene polymorphisms and risk for metabolic syndrome

M. Toma, Oana A. Alexiu, Anne M. Crăciun, Lavinia Berca, I. Radu, D. Cimponeriu

Metabolic syndrome (MS) is a syndrome characterized by association of five medical conditions: abdominal obesity (central), increased blood pressure, increased fasting glucose, high triglycerides and low HDL levels.

The aim of our study was to investigate possible relationships between polymorphism in five candidate genes (TGF beta, HSPG, insulin, IGF2 and ACE) and hypertension in patients with metabolic syndrome.

Blood samples were taken after obtaining informed consent from 34 patients with metabolic syndrome and hypertension and 80 healthy controls. Genomic DNA was extracted from peripheral blood using a commercial kit and the five polymorphisms were genotyped by PCR -RFLP. Statistical analysis was performed with StatDirect program.

For the HSPG BamH1 polymorphism, GG genotype (OR 9.27,  $p<0.05$ ) and G allele (OR 2.87,  $p<0.05$ ) are associated with increased risk of disease. For the ACE ID polymorphism, DD genotype (OR 4.54,  $p<0.05$ ) and D allele (OR 3.33,  $p<0.05$ ) have been associated with disease risk. We have not identified statistically significant associations between other polymorphisms and metabolic syndrome or hypertension.

These results support that HSPG BamH1 and ACE ID polymorphisms may contribute to the risk for patients with metabolic syndrome and hypertension.

### Mitral valve involvement in STEMI

Alice E. Munteanu, D. Nita, Cristina M. Calcan, Irina Florescu

The purpose of this paper is to provide information about the influence of mitral regurgitation on mortality rate in patients undergoing primary angioplasty for STEMI. Cardiovascular diseases lead to one third of the deaths worldwide, surpassing the mortality rate produced by neoplasia, acute respiratory failure and diabetes mellitus all together. In the world, approximately 17 millions die

annually because of cardiovascular disease and every 5 seconds one is suffering from a myocardial infarction.

There are a number of publications and data-bases which have centralized informations about STEMI patients for almost 20 years now, enhancing a serious lowering of the mortality rate. Central Military Hospital became part of the RO STEMI national programme in 2004. We made a retrospective study in which we included patients with STEMI in 2016 that reached our hospital in the first 24 hours since the beginnings of symptoms in order to benefit from emergency interventional therapy. Including criteria are the classic ones for STEMI: clinical, electrical and biological features.

There was recorded the presence of preexisting valvulopathies, evolution of their severity after interventional myocardial revascularization, the presence and the importance of comorbidities and associated risk factors.

The aim of this study is to establish the relationship between mitral regurgitation, the evolution and short-term prognosis, to establish early mortality rate after an acute arterial state and also the influence of risk factors and comorbidities in our clinic for the chosen period of time.

After final results are obtained, a parallel with mortality rates declared in the first years of this programme and with those declared for STEMI patients admitted in cardiology department of our hospital in 2011.

### **Post-STEMI evolution – the experience of our hospital**

**Alice Munteanu, L. Chiriac, D. Nita, Irina Florescu, Cristina Calcan**

The major limitations of balloon angioplasty have been represented by the acute obstruction and restenosis of blood vessels. Early studies of intracoronary stents have shown that these devices are very effective in treating or preventing acute blood vessel obstruction, thus avoiding emergency surgical bypass interventions. Two randomized trials – the Benestend and STRESS (Stent Restenosis Study) have shown that stenting lesions de novo on native coronary have reduced angiographic restenosis by about 30% compared to conventional balloon angioplasty. Implanting stents leads to a luminal diameter larger than balloon angioplasty, both right after the surgery and in the follow up, thus to a lower restenosis rate.

Indications for interventional myocardial revascularization are: STEMI, NON-STEMI, stable angina, angina equivalent – dyspnea, arrhythmias, syncope, asymptomatic patients or

moderately symptomatic with a medium-large surface of viable myocardia, or moderately-severe myocardial ischemia on noninvasive tests, angiographic – hemodynamically significant lesions on myocardia arteries which irrigate a viable myocardia and have a diameter higher than 1.5 mm.

Relative contraindications for interventional myocardial revascularization are: relevant comorbidities, small diameter coronaries or venous grafts with diffuse stenosis, LAD stenosis in a patient with CABG recommendation (surgery remains the preferred therapy method for such cases), PCI unsuitable coronary anatomy.

Contraindications for interventional myocardial revascularization are: patients with contraindications for antiplatelet or anticoagulant therapy, coronary lesions which prevent fully inflating the balloon and properly implanting the stent.

Vasile Candea Emergency Clinical Centre for Cardiovascular Diseases is part of the national program RO-STEMI for 5 years. During this period 3453 patients were admitted with STEMI. 2952 patients received primary PCI.

The results regarding procedures performed were: 14.5% were not admitted to angiography, 4.4% received only PCI without stent, 52.6% of patients received one stent, 21.5% 2 stents, 6.4% 3 stents and 0.6% 5 stents. The vessel responsible for STMI was in 57% of cases LAD, in 30.2% was RCA, in 11% was CXA and in 1.7% was not specified. The rate of early complications after angiography was 9.3%: 3.5% of patients suffered acute stent thrombosis, 3.2% of patients had pseudoaneurysm, 1.7% of patients had procedural failure and 0.9% had coronary dissection. At discharge 71.5% of patients hadn't symptoms of heart failure. 25% of patients showed signs of left heart failure and 3.5% of patient admitted in programme died.

### **Hospital management of mass casualty incident**

**B. Teușdea, F. Costea, M. Toma, S. Dogaru**

Mass casualty incident with a large influx of victims are inevitable. A correct and careful risk assessment and an efficient planning of activities and resources will allow the impact of these situations to be reduced to the basic activity of the hospital and the quality of healthcare. Much of these situations can be managed using resources that work redundantly to mitigate the expected effects of the emergency.

Beyond the proper management of risks, the introduction of an alert and evaluation system is extremely important. These systems, together with precautionary measures related to unidentifiable risks, will help prevent traps that

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can occur after a crisis has occurred.

Communication systems in the event of disasters or in major emergencies may be affected. Under these circumstances, the White Plan sets out the main means of communication that must/can be used.

WHITE PLAN represents the response plan of bedside units in the event of a massive influx of patients following a collective accident, a calamity, epidemic or pandemic. The WHITE PLAN allows the management of emergencies outside the hospital, requiring additional human, logistical, financial, and appropriate training.

The course addresses to medical specialists and nurses and intend to make introduction to the White Plan's overall framework, explain what does the WHITE PLAN mean, present the crisis cell at the ED and at the hospital level, and organization of receiving multiple emergencies, explain the Triage of Patients and Triage Card, and finally present some concept regarding to decontamination in case of nuclear, chemical and biological accidents.

### **Civilian and military trauma – the same, although different**

**B. Teușdea, M. Toma, S. Dogaru**

The first triage system was conceived and developed on the battlefield, but the ATLS (Advanced Trauma Life Support) course was developed by a civilian.

Nowadays, military patterns of injury are increasingly seen in the civilian setting as a result of terrorist attacks.

Common principles can be applied to trauma resuscitation meaning there is one system for all patients and all injury mechanism. This is the <C>ABC system.

In the military setting there are four definable levels of clinical capability: care under fire, tactical field care, field resuscitation and advanced resuscitation.

The differences between military and civilian trauma are also related to injury pattern, population at risk, physical factors, security, equipment and drugs, people and focus.

Seeing trauma care in dynamics from ATLS courses versus military trauma rules remain an interesting and open discussion.

### **Multiple trauma management in a fighter pilot**

**D.D. Negoită, C.B. Teușdea**

Major trauma management is well described in the literature, for example ATLS courses. Military personnel that suffer major trauma must be evaluated after having received complex treatment for the suitability to further serve in the military.

We would like to present the case of a fighter jet pilot who had to eject himself, suffered a major trauma, was stabilized at the nearest emergency hospital, and then referred to our hospital for advanced treatment.

The patient was further investigated in the emergency room, his pain was alleviated, supportive treatment was continued, and then he was admitted to neurosurgery, operated the next day, and later on underwent physical rehabilitation with good results.

This case illustrates the peculiarities of the work in the emergency department of a tertiary hospital.

### **Civil/private versus military emergency medical systems for aeromedical evacuation**

**L.M. Lupu**

Introduction and objectives: Emergency medical systems are wide organizations and need a lot of resources and knowledge to perform. The objective is to compare the organizational principles, C3 (command, control and communication), methods, protocols and resources between civil and military emergency system.

Materials & methods: This paper provides a review of the most important aspects of planning and execution of patient movement within the two systems.

Results: It's described the result of managing medical cases by the two systems.

Conclusion: A close interaction between the systems, including methods of training and working together can be an option. The aim to create a single National Emergency System for Aeromedical Evacuation with civil, military and private component is debatable.

### Clinical toxicology laboratory a half century of experience

**Sandra M. Forje, Dida Ardeleanu, Cristina M. Șerban**

Military Medical Research Center is a pillar of excellence in the field of Toxicology for nearly half a century.

The Clinical Toxicology Department within the Military Medical Research Center, performs scientific research activities for the development and application of methods and means to improve medical first aid and specifically treatment in various acute poisoning by studying the mechanisms of pathogenesis of acute intoxications with Chemical Warfare and other substances with toxic potential.

As part of the preparedness and capacity of intervention in situations involving the personnel of the Ministry of National

Defense, Clinical Toxicology Laboratory provides analytical laboratory investigations for diagnosis of certainty for intoxications cases from the Emergency Hospital Bucharest, as well as other Health Units.

The performing of toxicological screening through analytical techniques Fluorescence Polarization Immunoassay and Gas Chromatography – Mass Spectrometry is ensured that for a large number of xenobiotics and their metabolites, as organochlorine compounds, organophosphorus compounds herbicides, fungicides and various drugs. A distinct group of cases of intoxications are represented by psychotomimetics substances excess consumption.

From the recent years studied cases the authors will present a selection of assays that helped physicians from "Carol Davila" University Central Emergency Military Hospital in establishing the diagnosis of certainty.

## OP session internal medicine

### Changes in lipid levels associated with initiation of TNF inhibitor therapy in patients with ankylosing spondylitis

**Daniela Anghel, M.L. Ciobica, C.V. Jurcut, Livia Otlocan, Maria M. Negru, Andreea I. Lungu, G.D. Stoicescu, A. Anghel**

**Background:** The increased risk for cardiovascular diseases (CVD) is associated with high levels of total cholesterol (TC), low density lipoproteins (LDL) and triglycerides (TG) and low levels of high density lipoproteins (HDL). In ankylosing spondylitis (SA) patients the risk of CVD is greater than the general population.

**Objectives:** To compare lipid levels in ankylosing spondylitis (SA) patients and osteoarthritis (OA) patients and to determine the changes in lipid levels in ankylosing spondylitis patients after 6 months of initiation of anti-TNF therapy.

**Methodes:** The study is retrospective and we followed-up adults with ankylosing spondylitis or OA with no other inflammatory diseases. We determined to this patients a lipid profile – TC, LDL, HDL, TG- levels at baseline and after 6 months.

The patients don't intake a lipid-lowering medication (LLM). All patients with SA received anti-TNF alfa therapy for the first time.

**Results:** The study included 43 patients with SA with anti-TNF alfa initiation and 35 patients with OA who met eligibility criteria of diagnosis. The patients diagnosed with hyperlipidemia was significantly higher in ankylosing spondylitis group than in OA group (58% vs. 42%,  $p < 0.0001$ ). Mean age it was 55 years and 78% were women.

At baseline OA patients had lower TC (196 mg% vs. 209 mg%  $p < 0.0001$ ) than the SA patients. Significantly lower proportions of ankylosing spondylitis vs. OA patients had borderline or lower TC and LDL levels.

Ankylosing spondylitis patients after 6 months of the initiation of anti-TNF inhibitors had a significant increase in TC level (5 mg%  $p < 0.0001$ ) and LDL level (3 mg%  $p = 0.0005$ ) and a decreased HDL level (0.5 mg%  $p = 0.001$ ).

**Conclusion:** Results of study indicate that ankylosing spondylitis patients have a higher level of total cholesterol and low density lipoproteins than OA patients.

In ankylosing spondylitis patients with initiation of alfa TNF inhibitors therapy we observed an increased TC and LDL levels vs. OA and HDL levels was similar to OA patients.

A good management of dyslipidemia and reduced systemic inflammation with anti-TNF therapy may reduce the risk of cardiovascular diseases in ankylosing spondylitis patients.

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## **Dermatomyositis with severe Raynaud syndrome**

**G.D. Stoicescu, L.M. Ciobica, A. Anghel, Daniela Anghel, S.M. Stanciu**

Idiopathic inflammatory myopathies (IIM) are autoimmune disorders with an annual incidence of 2 to 10 cases/million. Main clinical and biological features include symmetric proximal muscle weakness, heliotrope rash, and an increase in skeletal muscle enzymes, myositic specific antibodies, and characteristic abnormal electromyographic pattern and bioptic evidence of myositis

A 43 year-old NCO male was first admitted in our clinic in 2012 and diagnosed with dermatomyositis according with Bohan and Peter criteria.

Treatment was started and continued according to the Romanian guide for diagnosis and treatment of IIM (established in 2010). We used high-dose systemic corticoterapy, which was tapered according to patient evolution. During tapering there were 2 relapses of myositic features (one severe and one mild) – thus necessitating the restart of high-dose corticoterapy. A stable and persistent remission of the disease was achieved after 1 year. Azathioprine was used as the steroid sparing agent and is now the main current treatment of the patient.

Systemic corticoterapy generated secondary Cushing features and steroid osteoporosis with vertebral fractures. Steroid replacement and bisphosphonates were used for control.

Severe Raynaud syndrome with spontaneous symptoms and partial response to therapy was present from the beginning of the clinical manifestations and is the main feature now. Due to the absence of myositic specific antibodies and the presence of myositis-associated autoantibodies an overlap with systemic sclerosis will be explored.

Treatment in IIM is often efficient in controlling the disease, but the patient's outcome is determined by the secondary effects of the steroids or immunosupresives used and by the existence of other immune or nonimmune disorders.

## **Sarcoidosis – from non-therapeutic intervention to systemic immune suppression**

**L. Ciobică, Iolanda Sîrbu, Ana M. Dumitru, Andreea Săvulescu**

Sarcoidosis is a rare disorder with an incompletely discovered etiopathogenic mechanism. Symptomatology and presentation patterns are generally polymorphic, which

constantly generates differential diagnosis problems, especially in the initial stages of the disease. Also, the therapeutic approach is very variable, from non-therapeutic intervention and follow-up to systemic immunosuppression.

We chose two clinical cases, diagnosed and monitored in the Central Military Emergency Clinical Hospital. Both were diagnosed with pulmonary sarcoidosis. The diagnostic and therapeutic approach of these cases require imagistic support and interdisciplinary collaboration, taking into account the polymorphism of clinical manifestations and possible organ damage.

All these were reasons for updating and presenting modern data on the management of sarcoidosis.

## **Associated autoimmune diseases**

**L. Ciobică, S. Stanciu, D.G. Stoicescu, Iolanda Sîrbu, Ana M. Dumitru, Andreea Săvulescu**

Ankylosing spondylitis (AS) is a chronic, inflammatory and rheumatic disease from the group of spondyloarthropathies (SPAs), which primarily targets the sacroiliac joint and spine, and less frequently, the peripheral joints. It can also present with non-joint involvement. The disease frequently affects young adult males

We present the case of a 33-year-old patient suffering from ankylosing spondylitis, who came in for perioral paraesthesia and paresthesia on the right-hand side which started 5 days ago. Background disease began 5 years ago when, after a gastrointestinal infectious episode, the patient's knee arthritis was unresponsive to NSAID treatment but with favorable progression following treatment with sulfasalazine.

Biologically, laboratory tests show moderate leukocytosis, moderate inflammatory syndrome, and low sideremia. The neurological examination, supported by the outcome of the cerebral MRI, raises the suspicion of multiple sclerosis, but does not exclude the diagnosis of toxocarosis.

Immunological evidence is being processed now.

Although the most common autoimmune diseases associated with ankylosing spondylitis are inflammatory bowel disease or psoriasis, unknown etiopathogenic mechanism and polymorphic symptomatology should always raise questions about any new emerging symptom, the diagnostic and therapeutic approach of these cases requiring imagistic support and interdisciplinary collaboration.



### More than an immune deficit...

**Oana Stancu, Roxana Diaconu, Denise A. Mardale, Theodora Militaru, V. Smedescu, Elena Busuioc, A. Zugravu, E. Mandache, I. Copaci, C. Jurcut**

We present the case of a 52-year-old patient who was hospitalized in our clinic for evaluation and treatment of newly discovered hypogammaglobulinemia. The disease started with a persistent diarrheal syndrome, being previously diagnosed and treated as an inflammatory bowel disease, with unfavorable evolution through multiple complications: repeated respiratory tract infections, urinary tract infections, bronchiectasis, severe malabsorption syndrome with malnutrition and multiple metabolic deficiencies (vitamin D with secondary osteoporosis, vitamin B12, folic acid and iron secondary anemia). Upon admission, the patient accuses physical asthenia and weight loss. The clinical exam revealed a generally mediocre state, cachexia, teguments and pale mucous. Laboratory tests confirmed metabolic deficits and low IgA, IgM and IgG values. Digestive endoscopies invalidated the diagnosis of intestinal inflammatory disease and excluded celiac disease. Treatment for correction of metabolic defects was initiated and monthly intake of intravenous gammaglobulins was initiated. After several months, the patient accused nausea and vomiting, was diagnosed with gastric calcinoma and was operated with favorable oncological evolution, but subsequently he returned for edematous syndrome with significant proteinuria. Immunofixation of serum proteins was within normal limits, renal biopsy determined the diagnosis of amyloidosis and high serum amyloid A thus suggesting AA type of amyloidosis.

Hypogammaglobulinaemia has various clinical manifestations and presents an increased risk for neoplasia, so early diagnosis and treatment are essential. Systemic amyloidosis type A is a rare complication, which is explained by chronic inflammation induced by recurrent infections.

### Modern methods to differentiate benign thyroid nodules from malignant ones

**L. Eftimie, R. Hristu, A. Calu, M. Curea, Florina Vasilescu, Liana Toma, Rodica Bulata, M. Sajin, Mariana Costache, S. Stanciu, G. Stanciu, M. Dumitrescu**

**Objective:** The purpose of this study was to compare the ultrastructural capsular changes appearing in follicular adenoma, papillary and follicular thyroid carcinoma for differentiating between benign and malignant thyroid nodules.

**Methods:** Second Harmonic Generation (SHG) Microscopy was used to image collagen distribution in the capsules of several types of nodules. The tissue fragments were formalin-fixed, paraffin-embedded but without H&E staining, with 4-7 microns thick sections. Collagen organization was evaluated using different parameters such as the collagen organization coefficient based on the Fast Fourier Transform (FFT) of 2D-images and the Gray-Level Co-Occurrence Matrix (GLCM) angular second moment (ASM) used as a measure of textural uniformity and entropy which is a parameter of disorder in a micrograph.

**Results:** SHG microscopy images were acquired to assess the collagen organization of tumoral capsular thyroid nodules previously diagnosed as benign or malignant by conventional H&E staining.

Different degree of collagen fibers organization was observed and quantified using FFT and GLCM. A higher degree of structural variation was observed for the thyroid capsule compared to nodular capsules resulting in lower value of ASM and higher entropy.

**Conclusion:** These above described microscopy method help us distinguishes between benign or malignant thyroid nodules, based on the capsular collagen parameters, especially in patients treated with antithyroid drugs.

### "Living with" mesenteric panniculitis

**Anca Ghiatau, V. Smedescu, Anca Manolache**

Mesenteric panniculitis is a rare, benign and chronic fibrosing inflammatory disease that affects the adipose tissue of the mesentery of the small intestine and colon with no specific etiology. The diagnosis is suggested by computed tomography and is confirmed by surgical biopsies- rarely necessary. The disease is more common in men (3:1)

An 88-year-old male patient presented to our care for a chronic history of abdominal discomfort and mechanical lumbar pain. His past medical history was significant for hypertension, prostatic adenoma- for which he was operated, pancreatic lipomatosis and significant cerebral atrophy. He also had a history of an imagistic examination 8 years before presentation in which pancreatic lipomatosis and mesenteric lipodystrophy was described.

Upon physical examination, he had stable vital signs and a slight tenderness upon deep palpation of the epigastric region with a tendency towards constipation. Laboratory data revealed a normal blood count, hyperglycemia (237mg/dl with a glycated hemoglobin of 9.5%) and slight inflammatory syndrome.



Abdominal ultrasound revealed a hyperechogenic mass in the epigastric region resembling the echostructure of the liver and raising suspicion for a retroperitoneal tumor. Computed tomography of the abdomen was performed without intravenous contrast administration (due to slightly elevated creatinine), which showed a focal increase in density of the mesenteric fat in the epigastric and mesogastric region, compatible with a mesenteric panniculitis. He was examined by a general surgeon which suggested oral anti-inflammatory treatment.

The clinical response was good, with the regression of pain, therefore we decided to postpone other possible treatment options (steroids, thalidomide, cyclophosphamide, colchicine, tamoxifen, antibiotics, and radiotherapy, surgery in the case of bowel obstruction or perforation) for the possibility of clinical aggravation. Our patient "had been living with" mesenteric panniculitis for at least 8 years now; therefore we expect a good short and long-term prognosis.

### **Pancoast Tobias syndrome due to a plasmacytoma**

**Anca Ghiatau, M. Sotcan, Mihaela Iordache, C. Jurcut**

Pancoast syndrome is the result of a malignant neoplasm of the superior sulcus of the lung which leads to destructive lesions of the thoracic inlet and involvement of the brachial plexus and cervical sympathetic nerves, it mainly consists of severe pain in the shoulder region radiating toward the axilla and scapula and Horner syndrome. Plasmacytoma is a plasma cell dyscrasia in which a plasma cell tumor grows within soft tissue or within the axial skeleton. Extramedullary plasmacytomas most often occur in the upper respiratory tract (85%).

We present the case of a 64 year old man from the rural region who was admitted in our clinic for severe right shoulder pain and epistaxis.

His recent history included admission in the pneumology and thoracic surgery wards where he was diagnosed with right upper lobe lung cancer with invasion in the thoracic wall and T1 vertebral body without endobronchial proliferation at bronchoscopy.

Biopsies were taken from the laterocervical lymph nodes- the extemporaneous examination suggesting a neuro-endocrine tumor – the imunohistochemistry was not ready at the time of admission.

His recent – 2 weeks before our admission – blood tests revealed a normal creatinine (1.13 mg/dl) and a mild normochythic anemia (10.6 g/dl N=12-18).

On admission he presented with moderate normochytic

anemia (7.9 g/dl), moderate thrombocytopenia (89.000/ul), elevated BUN and creatinine (5.26 mg/dl), elevated calcium (12.10 mg/dl). Given the high suspicion of multiple myeloma (CRAB criteria fulfilled) a protein electrophoresis was performed which revealed a 61% monoclonal gamma component.

Medullary aspiration confirmed a plasmacytic infiltration of ~70% and the patient was transferred in the hematology ward for specific treatment.

Despite aggressive fluid resuscitation the creatinine and calcium remained elevated and the patient suffered a cardiorespiratory arrest soon after the first chemotherapy dose.

In conclusion, this is the case of a pulmonary plasmacytoma presenting as Pancoast Tobias syndrome, the main and first manifestation of this case of multiple myeloma.

### **Multiple myeloma – a devastating disease**

**M. Șotcan, Lavinia Bârsan, E. Dănăilă**

A 55 year-old man presented to our clinic in June 2015 for low back pain and inflammatory syndrome. Complex imagistic and biological tests sustained the diagnosis of multiple myeloma stade IIIA with sacral plasmocitoma. The patient was treated with 2 VAD and 6 Cybord chemotherapy protocols – with VGPR. Than, in august 2016 he received autotransplant.

The treatment followed with beweekly bortezomib and dexametazone until February 2017 when he accused sacral pain. The MRI revealed reccurence of the sacral tumor. Abdominal ultrasound also diagosed a left hepatic lobe tumor. The tumor was biopsied under ultrasound guidance and the diagnosis was hepatic plasmocitoma. The patient was treated with VTD protocol but the diseased progresed even more; the computed tomography revealed disseminated disease. He is now on rescue therapy with lenalidomide-dexametazone; but the prognosis is bad.

### **Hyperleukocytosis in acute myeloid leukemia**

**M. Șotcan, Lavinia Bârsan, E. Dănăilă**

Hyperleukocytosis (HL) is a laboratory abnormality, commonly defined by a white blood cell count >100000/microL, caused by leukemic cell proliferation. Not the high blood count itself, but complications such as leukostasis, tumor lysis syndrome and disseminated

intravascular coagulation put the patient at risk and require therapeutic intervention. The risk of complications is higher in acute than in chronic leukemias, and particularly leukostasis occurs more often in acute myeloid leukemia (AML) for several reasons. Only a small proportion of AML patients present with HL, but these patients have a particularly dismal prognosis because of a higher risk of early death resulting from hyperleukocytosis complications and a higher probability of relapse and death in the long run. Hyperleukocytosis at initial diagnosis must be considered a hematologic emergency and requires rapid action of the admitting physician in order to prevent early death.

### Cognitive rehabilitation from theory to practice

**D. Nedeleescu, A. Iliuta, Paulina Vintila, Simona Ionescu**

Neurocognitive or Cognitive Rehabilitation is a cognitive skills therapy system designed for the rehabilitation of individuals who have experienced cognitive impairment as a result of traumatic brain injury, stroke and other neurological insults.

Cognitive Rehabilitation Therapy is designed to develop and enhance cognitive functions across the following domains: attention skills; executive skills; memory skills; visuospatial skills; problem solving skills; communication skill.

The approach to rehabilitation draws on the expertise and experience of specialists from many disciplines who work together to address each patient's individual physical,

emotional, behavioral and social challenges. Theoretically - team members include: certified rehabilitation vocational counselor; cognitive therapist; neuropsychologist; nurse case manager; occupational therapist; physical therapist; speech-language pathologist.

However, rehabilitation is not limited to improving physical disability. Cognitive rehabilitation attempts to enhance functioning and independence in patients with cognitive impairments as a result of brain damage or disease, most commonly following traumatic brain injury or stroke. As with physical rehabilitation, cognitive rehabilitation may include interventions that aim to lessen impairments, or interventions that aim to lessen the disabling impact of those impairments. Interventions are applied through technology and other compensatory strategies that may allow the individual with cognitive impairment to accomplish important life activities and more fully participate in society.

Because of the variability in patients and the Cognitive Rehabilitation they may receive, research studies, to date, have not identified a single most effective treatment. In some cases, reports of limited research about Cognitive Rehabilitation has led private health plans to deny Cognitive Rehabilitation. Many reports call for more research on Cognitive Rehabilitation, but recognize the difficulty in obtaining conclusive results.

The heterogeneous array of treatments available, as well as the lack of a unified theoretical framework for defining and quantifying them, makes definitive evaluation of their effectiveness particularly challenging.

## OP session gastroenterology

### Choledochoduodenostomy causing liver abscesses: case report of a delayed complication

**Georgiana C. Robu, V.D. Balaban, C. Bețianu, Raluca S. Costache, P. Nuță, Andreea Zoican, Marina Ciochină, Sandica Bucurică, M. Pătrășescu, M. Tănase, Giorgiana Păvăloiu, Florentina Ioniță-Radu, Mariana Jinga**

**Introduction:** Liver abscesses are relative rare septic complications within the digestive system. Recently, outcomes in patients with liver abscesses have improved as a result of advances in radiological diagnosis and percutaneous treatment options.

**Case description:** We report the case of a 78 year-old female

who was admitted to our department for right upper quadrant pain, nausea and fever, symptoms that had been lasting for about four weeks.

Her past history revealed cholecystectomy 30 years ago and benign common bile duct stenosis 20 years previously.

On physical examination we noticed tenderness and a palpable mass in the right quadrant of the abdomen.

Laboratory evaluation revealed marked leukocytosis, moderate anemia, and cytopenia and kidney failure.

The last upper endoscopy showed choledochoduodenostomy.

Computer tomography revealed a liver abscess in segments

V-VIII.

We started systemic, broad-spectrum antibiotic therapy and a percutaneous drainage was performed. Evolution was favorable at the beginning, but after three days it has been worsened. Blood cultures were negative. CT showed a new, complex liver abscess near the drainage tube. Patient was transferred to the surgery department where laparoscopic drainage was done.

After 7 days of postoperative recovery, the patient was discharged with resolution of symptoms, leukocytosis, improvement in liver and kidney function.

Conclusions: Liver abscess can be considered a pathology of connection between gastroenterology, radiology and surgery and that's why it is important to have a multidisciplinary team.

### **Focal nodular hyperplasia in a patient with viral hepatitis – a case report**

**Mihaela Iordache, S.M. Stanciu, G.D. Stoicescu, A. Anghel, Dana Anghel, L.M. Ciobica, Raluca Costache, P. Nuta, Mariana Jinga, Florentina Ionita Radu**

Hepatic nodules found in patients with viral hepatitis usually are hepatocellular carcinomas. Focal nodular hyperplasia (FNH) is a regenerative mass lesion of the liver and, the second most common benign liver lesion after cavernous haemangioma. FNH is believed to occur as a result of a localized hepatocyte response to an underlying congenital arteriovenous malformation. It is not seen in patients with cirrhosis.

Differential diagnosis of new-onset hepatic nodules based on imaging features remains the great concern for physicians. To our knowledge, no cases of new-onset FNH in patients with hepatitis C virus have been reported, therefore we present a case of hepatitis C virus infected female with a new-onset FNH during follow-up after interferon therapy.

### **Atypical adult Celiac disease – decompensated liver cirrhosis: case report**

**Andrada L. Popescu, A.I. Gavrilă, P. Nuță, Raluca S. Costache, Mariana Jinga, Sandica Bucurică, B. Macadon, M. Pătrășescu, Mirela Chereja, Florentina Ioniță-Radu**

Introduction: Celiac Disease (CD) is a disease in which the mucosal lining of the small intestine is damaged in response to ingestion of gluten and similar proteins, which are found in wheat, oats, rye, barley and other grains. Adult CD has a

wide variety of presentations and symptoms.

We are presenting the case of a 39-year-old male transferred to our unit after 2 weeks for further investigations and management, diagnosed with decompensated cirrhosis with recent worsening of his symptoms and suspicion of spontaneous bacterial peritonitis. He had a history of alcohol consumption, negative viral markers, fatigue, and clinical signs of portal hypertension, ascites, and large peripheral edema.

Additional history revealed flatulence and occasional episodes of diarrhea without blood or mucus. On laboratory investigation, he had important inflammatory syndrome, leukocytosis with neutrophilia, low protein and albumin level.

We performed paracentesis with peritoneal fluid testing (cell count, gram stain, culture, SAAG), and look for other possible infection. We raised the suspicion of protein losing enteropathy after excluding other causes, the upper GI endoscopy showed loss of kerckring folds in the descending duodenum and the histopathology revealed villous atrophy. The serology markers were positive for anti-tissue transglutaminase antibody. Based on the above findings, the diagnosis of celiac disease was strongly suspected and the patient was managed with gluten-free diet. He responded nicely and all his symptoms and clinical signs improved, with complete remission of edema and ascites.

Conclusion: This case report highlights the polymorphic nature of celiac disease, than can mimic another disease. In conclusion, a high index of suspicion is needed to identify the atypical forms of the disease.

### **Familial adenomatous polyposis and liver metastases**

**Mihaela Iordache, S.M. Stanciu, G.D. Stoicescu, A. Anghel, L.M. Ciobica, Raluca Costache, P. Nuta, Mariana Jinga, Florentina Ionita Radu**

Familial adenomatous polyposis (FAP) is an autosomal dominant disorder caused by mutation of the adenomatous polyposis coli (APC) gene. It is mainly characterized by the presence of a large number of polyps in the gastrointestinal tract, more than 100 colonic polyps, with extra-colonic manifestations in the soft tissue and eye lesions.

Neuroendocrine tumors (NETs) are also a rare condition. They are occasionally observed in patients with familial adenomatous polyposis (FAP), suggesting a role for the adenomatous polyposis coli/ $\beta$ -catenin pathway.

We present the case of a male diagnosed with FAP and liver

metastases. Histological analysis revealed metastases to be secondary to a neuroendocrine tumor. To date, only a few cases showing the simultaneous occurrence of the two entities have been published.

### **Clostridium difficile infection in end-stage-liver disease-current challenges – case report**

**Florentina Ioniță-Radu, Andrada L. Popescu, P. Nuță, Mariana Jinga, Raluca S. Costache, Sandica Bucurică, B. Macadon, M. Pătrășescu, A.I. Gavrilă, Mirela Chereja**

**Introduction:** Clostridium difficile is very common in patients with end-stage liver disease. The diagnosis in cirrhotic patients is difficult due to the background of a partial systemic inflammatory response syndrome (SIRS) and atypical presentation. This condition is very often followed by prolonged hospitalization, further nosocomial infections and de-listing from liver transplantation. **MATERIALS AND Methods:** We present a case of recurrent Clostridium difficile infection in a 40 year old men with end-stage liver disease due to alcohol consumption, with atypical presentation and negative immunoassay enzyme tests for Clostridium toxins A and B.

The patient presented in our clinic with anasarca, encephalopathy and intermittent diarrhea. No history of fever was identified. Biological findings showed elevated prothrombin time, leukocytosis, macrocytic anemia, severe hypoproteinemia and dyselectrolytemia. No SIRS or elevated procalcitonin level were identified. The patient had no proteinuria, multiple negative hemocultures, coprocultures, negative Clostridium difficile immunoassay enzyme tests and also no abnormalities on sternal puncture or evidence of venous thrombosis. A PCR for Clostridium difficile was lately performed and was positive. Oral vancomycin treatment was started and resumed with tapered doses after remission. Metronidazol treatment was withheld as it worsen liver failure. Despite the treatment the patient had multiple recurrences with admissions in therapy unit, followed by severe nosocomial infections and two resuscitated cardiac arrests.

**Results and conclusion:** Clostridium difficile infection is associated with a high rate of mortality in cirrhotic patients and should be excluded as soon as possible in all decompensated patients even there is no typical presentation or cogent immunoassay tests.

### **Controlled attenuation parameter for assessment of hepatic steatosis in chronic liver disease**

**Raluca S. Costache, Florentina Ioniță-Radu, Mariana Jinga, P. Nuță, Samdica Bucurică, B. Macadon, M. Pătrășescu, Andrada L. Popescu, V. Balaban, Gaudia Mănescu-Avram, Georgiana Robu, A.I. Gavrilă, D.O. Costache**

**Introduction:** In developed countries liver steatosis became nowadays a major health problem affecting about 30% of population, with increased incidence in population with high rates of obesity, type 2 diabetes, alcohol consumption or those receiving certain drugs as steroids, amiodarone. Hepatic steatosis is also close related with hepatitis B and C infection

Based on ultrasound attenuation principle a new noninvasive technique was developed to quantify the liver steatosis along with liver fibrosis: controlled attenuation parameter (CAP)

**Material and method:** We evaluate 264 patients using FibroScan 502 Touch (Echosens, France) with M or XL probe divided in three groups: 141 patients with virus C infection, 72 patients with virus B infection and 52 patients with hepatic steatosis.

**Results:** The mean age was 57.64, 50.73 and 52.78 years respectively for the three groups of patients. Male to female ratio was 1.08 (137/127). We use for the CAP cut-off values the median resulting from a meta-analysis on 11 studies on 12 cohorts. For the three groups of patients we evaluate the CAP values according with fibrosis grade, ALT, AST, glycemic values, cholesterol and triglycerides with high level of concordance.

**Conclusions:** CAP as a noninvasive method for detection of hepatic steatosis is an objective, reliable and easy to perform, suitable for daily practice.

### **Ménétrier disease – a rare cause of recurrent upper gastrointestinal bleeding**

**D.V. Balaban, Georgiana Robu, C. Marina, A. Zoican, I. Moraru, M. Tănase, L. Eftimie, P. Nuță, Raluca S. Costache, Florentina Ioniță-Radu, Mariana Jinga**

**Introduction:** Ménétrier disease (hypertrophic gastropathy) is rarely found in clinical practice. Complications such as gastrointestinal bleeding may occur and usually originate from superficial erosions of the mucosa. We herein report the case of a patient with recurrent upper GI bleeding, with occult source, who was finally diagnosed with Ménétrier disease.

Case report: A 78 years-old male, with a past medical history of spherocytosis and gastric resection for bleeding ulcer (20 years previously), presented to the Emergency Department with intermittent melena for about two weeks.

The patient was hemodynamically stable and had a hemoglobin level of 4.2 g/dl. After hematologic correction of anemia, endoscopy was performed and showed diffuse bleeding at the anastomosis, without a clear source, which was stopped by epinephrine injection.

Second day the patient had massive hematemesis and endoscopy revealed a spurting hemorrhage on the posterior wall of the stomach, and successful hemostasis with epinephrine injection and clips was performed.

The patient continued to pass melanic stools intermittently for the next three weeks, with consecutive drop in hemoglobin levels, and multiple, repeated endoscopies were negative.

Anterograde enteroscopy and ileocolonoscopy were also negative; selective angiography did not show any bleeding sources, except congestion at the level of left gastric artery.

Of note, the patient had severe hypoalbuminemia during the entire length of hospitalization, for which substitution therapy was prescribed.

We suspected intermittent gastric bleeding and completion gastrectomy was performed, with remission of melena and increase in hemoglobin values. The pathology report from the surgical specimen showed features consistent with Ménétrier disease.

The patient later died of cardiopulmonary complications.

Discussions: Occult gastrointestinal bleeding can sometimes represent a diagnostic and therapeutic challenge. Our case report highlights the difficulty in reaching a final diagnosis and the need for multidisciplinary team decisions when routine protocols are non-diagnostic.

### **Physical effort – the prodigal son of prophylaxis in colorectal cancer**

**M. Pătrășescu, M. Diculescu, P. Nuță, Raluca S. Costache, Sandica Bucurică, B. Macadon, Andrada Popescu, V. Balaban, Mariana Jinga, Florentina Ioniță-Radu**

Introduction: Physical activity is a major and potentially modifiable component of life style that may reduce the risk of some cancers (endometrial, breast, colon, prostate, pulmonary, ovary).

Material: A series of observational studies (around 60 till now) suggests that physical activity decreases the risk of

colorectal cancer (CRC).

A very comprehensive meta-analysis that included 21 studies reports a significant 27% risk reduction of proximal CRC and 26% of distal CRC comparing highly active vs. sedentary individuals.

There are not yet published interventional studies concerning this issue.

It has been noticed that physical activity may reduce the risk of CRC regardless of the effect on weight, suggesting an independent mechanism of action as opposed to that represented by decreasing weight. A minimum of physical activity such as one hour per week of walking may sufficiently reduce the risk of CRC by 31%. There is a dose-response concerning heavier physical effort.

The proposed protective mechanisms may be: decreasing hyperinsulinism, increasing peripheral sensitivity to insulin, anti-inflammatory effects, controlling obesity, increasing intestinal peristalsis that may decrease the contact time between intraluminal carcinogens and colonic mucosa.

The physical activity renders the maximum CRC prophylactic benefit if it was performed in the age group of 30-39 years as opposed to no benefit for this issue in the age group of 15-30 years.

A relevant pool of literature data shows that physical activity has also a positive impact at the level of early CRC lesions (adenomas) and it ensures a prolonged survival after CRC diagnosis and treatment.

In spite of all these information the benefits of physical activity on CRC are not largely acknowledged.

Conclusion: Encouraging physical activity in the general population may be a very effective way of decreasing the global burden of CRC.

### **Experience in colonoscopy of fellows in training of the Department of Gastroenterology at Carol Davila University Emergency Military Central Hospital**

**Georgiana C. Robu, Gaudia Mănescu-Avram, A. Lungu, A.I. Gavrilă, Mirela Chereja, Iulia Enache, R. Mateescu, T. Anghel, Geanina Spulber, Roxana Călin, Andrada Popescu, V.D. Balaban, Raluca S. Costache, Sandica Bucurică, P. Nuță, M. Pătrășescu, Florentina Ioniță-Radu, Mariana Jinga**

Introduction: Department of gastroenterology is a university clinical in which 14 fellows in training in gastroenterology develop their activity.

The aim of our study is to share the experience of fellows in training in colonoscopy

**Materials and methods:** We enrolled in the study third and fourth year residents from Dr Carol Davila University Emergency Central Military Hospital who have performed lower gastrointestinal endoscopy during the whole year 2017. We have tried to establish indicators for quality colonoscopy such as: cecal intubation, withdrawal time, bowel preparation and adenoma detection rate.

**Results:** From the beginning of the 2017 till August 129 colonoscopies were performed.

Fellows in training achieved the cecum in 78% of the

colonoscopies, the rest of 22% failed to reach to cecum due to: 58% of patient's intolerance, 16% of tumoral stenosis, 16% of acute diverticulitis, 10% other causes. In 100% of examinations, the withdrawal time was over 6 minutes. The ileal intubation rate was 12% of colonoscopies.

**Conclusions:** All the procedures performed by residents were assisted and overseen by their seniors and indicators for quality colonoscopy were achieved in the majority of cases.

## OP session cardiology

### Particularities in interventional treatment in STEMI patients

**S. Botezatu, A. Iancu, D. Niță**

ST segment elevation myocardial infarction most commonly occurs when thrombus formation results in complete occlusion of a major epicardial coronary vessel. The most serious form of acute coronary syndromes, STEMI is a life-threatening, time-sensitive emergency that must be diagnosed and treated promptly via coronary revascularization, usually by percutaneous coronary intervention.

Thrombectomy for the treatment of ST elevation myocardial infarction (STEMI) is a simple and intuitive idea. However, the favorable results with thrombo-aspiration in STEMI were subsequently called into question by data indicating not only a lack of efficacy, but a risk of potentially deleterious complications. From our experience thromboaspiration is a safe procedure and very useful in patients with STEMI and total thrombus occlusion.

ST-segment elevation (STEMI) myocardial infarction due to critical stenosis or abrupt occlusion of the LAD (unprotected left main coronary artery) is a catastrophic situation with a very high in-hospital and long-term mortality. Many cases are never reported because of pre-hospital death. Although coronary artery bypass grafting (CABG) remains a class I recommendation for LM revascularization in European and American guidelines, percutaneous coronary intervention (PCI) is becoming an attractive option in patients with acute myocardial infarction and LAD as an infarct-related artery, especially when in

cardiogenic shock.

A minority of patients presenting with ST elevation myocardial infarction (STEMI) have angiographically normal coronary arteries. There is a small but definite incidence of angiographically normal coronary arteries in patients presenting with STEMI. While the eventual aetiology remains uncertain in most patients, long-term outcomes appear favourable.

### Endovascular treatment of brain aneurysm

**S. Botezatu, A. Iancu, D. Niță**

#### 1. What is brain Aneurysm?

A brain aneurysm, also referred to as a cerebral aneurysm or intracranial aneurysm, is a weak bulging spot on the wall of a brain artery very much like a thin balloon. As the artery wall becomes gradually thinner from the dilation, the blood flow causes the weakened wall to swell outward. This pressure may cause the aneurysm to rupture and allow blood to escape into the space around the brain.

#### 2. Treatment options for Brain Aneurysms:

- Surgical clipping
- Endovascular
- Parent artery sacrifice with or without bypass surgery
- Conservative management (no treatment)

#### 3. Endovascular treatment for brain aneurysms:

- Coiling of aneurysm



- Stent assisted coiling
- Balloon assisted coiling
- Flow diverters

4. Coiling of aneurysm: Endovascular embolization, or coiling, uses the natural access to the brain through the bloodstream via arteries to diagnosis and treat brain aneurysms. The goal of the treatment is to safely seal off the aneurysm with thin wires made by platinum and stop further blood from entering into the aneurysm and increasing the risk of rupture or possibly rebleeding.

5. Balloon assisted coiling: In slightly wide necked aneurysms balloon assistance is taken to coil an aneurysm in order to prevent prolapse of coil mass into the artery.

6. Stent assisted coiling: For wide necked aneurysms stent can be placed to hold coil mass inside the aneurysm.

7. Flow diverter: Flow diverter is a kind of stent which can be used without use of coils. They divert the blood flow to relief the pressure inside the aneurysm and favors in time the thrombosis.

8. Cases

### **An anxious doctor at risk of sudden death**

**S. Cecoltan, R. Boingiu, S. Dodoiu, Magdalena M. Gurzun, I. Hăntulie, A. Nicolae, S.I. Dumitrescu**

Overview: Sudden death – non-traumatic, unexpected fatal event occurring within 1 hour of the onset of symptoms in an apparently healthy subject. It is a major problem of public health, represents 25% of all cardiovascular deaths, among the young people with an incidence of 0.46-3.7 cases/100,000 persons/year, gaining a dramatic psychological and social burden. As a second etiology, after coronary artery disease, is cardiomyopathy. HCM – the disease is an autosomal dominant trait caused by mutations in cardiac sarcomere protein genes, consequently appear structural and functional abnormalities of the ventricular myocardium.

Method: We present the case of a 43-year-old patient, without noticeable cardiovascular risk factors, without a family and personal pathological cardiac history, extremely anxious, who presented for fatigability at sustained efforts and an episode of fast-paced palpitations.

Results: Objective exam, laboratory tests, ECG, echocardiography – where all within normal limits, which led to an initial diagnosis of anxiety related disorder. Conversely, a 24-hour ECG Holter monitoring revealed a NSVT episode and the surprise came at the second comprehensive echocardiography exam, made during the hospitalization in

our clinic, when we detected posterior wall hypertrophy with the maximum thickness at the level of the papillary muscles – approximately 26 mm, without intraventricular gradient at rest, but the Valsalva maneuver showed a gradient of 64 mmHg, and on the stress test >92 mmHg, normal myocardial velocities and grade 1 diastolic dysfunction. MRI exam confirmed the diagnosis of HCM.

Conclusions: The peculiarities of the case are lack of ECG changes described in very rare HCM forms with this location, the presence of normal myocardial velocities, the difficulty of identifying the hypertrophy with this location and the importance of Valsalva maneuver in detecting an intraventricular gradient. The caveat of the case is that overexpression of anxiety without obvious reasons could lead to underdiagnoses of severe disease.

### **The surprises of a „common” hypertensive pulmonary edema**

**Maria Manea, Oana Tăutu, S.I. Dumitrescu, Maria Dorobanțu**

We are presenting the case of a man, 56 years old, smoker, known with dyslipidemia and high blood pressure, who was admitted for aggravated dyspnea to dyspnea at rest in a few minutes, the symptomatology being suggestive for cardiogenic acute pulmonary edema in context of high blood pressure. Physical examination performed at emergency room shown that the patient was conscious, cooperant, and afebrile. The auscultation revealed rhythmic heart sounds, with HR 100 b/min, BP 240/110 mm Hg and pulmonary crackles bilateral basal. The blood tests revealed leucocytosis, hyperglycemia, dyslipidemia and increased creatinine. The ECG showed sinus rhythm, with negative T waves in lateral territory of the heart. The chest x-ray revealed confluated alveoli opacities localised at the right pulmonary parenchima.

Transthoracic ecocardiography showed the surprise: excessive trabeculation of the left ventricle, which raised the suspicion of non-compaction of the left ventricle. Also, ecocardiography showed dilatation of the left ventricle and severe systolic dysfunction (LVEF 35%). In this context, it was performed a cardiac MRI which confirmed the diagnosis of LVNC.

In the context of systolic dysfunction of the left ventricle, it was performed a coronarography which shown that the coronary arteries have no atherosclerotic lesions, so the ischemic cause was excluded.

ECG Holter/24 h did not record significant arrhythmias. Also,



the arterial pressure was recorded with a Holter which revealed high blood pressure by night, which raised the suspicion of obstructive sleep apnea.

The patient was treated according to the heart failure and high blood pressure guidelines: betablocant, statin, loop diuretic. It was initiated treatment with antialdosterone diuretic and ACEi, but hyperpotasemia was noted.

The patient's evolution was favourable, with normal values of blood pressure and asymptomatic regarding heart failure. The patients need reevaluation every 6 months with ecocardiography and Holter ECG to record and treat promptly eventual arrhythmias.

This case is particular because a complex pathology was hidden behind a simple crisis of high blood pressure: non-compaction of the left ventricle, a rare congenital cardiopathy, evolving heart failure, arrhythmias and emboli.

### **Ascites after liver transplant – cardiologist's opinion**

**Cecilia Pătru, C. Calin, P. Platon, I. Popescu, Carmen Ginghina**

We present the case of a patient of 32 years old with

congenital cardiac malformation (ventricular septal defect with bidirectional shunt, severe pulmonary stenosis and foramen ovale patent) operated 8 years before: closure with Dacron patch of the defect and pulmonary comisurotomy. After approximately one year from the intervention it was established a diagnosis of constrictive- effusive pericarditis and it was done pericardiolysis with release of both cava veins and drainage of 250 ml blood.

After 7 years from closure of the septal defect, the patient was diagnosed with liver cirrosis of hepatitis B and he had indication of liver transplant. The induction and maintenance of immunosuppression was achieved with tacrolimus, mycophenolate mofetil and corticosteroids. After transplant, the patient presents persistent ascites, although both the biological and the tomographic computer function of the graft is normal, HBV antigen is undetectable after 5 months post-transplant.

Echocardiographie, computer tomography and cardiac catheterization revealed an aspect of constrictive pericarditis.

The peculiarities of the case:

Sudden onset of the symptoms for right heart failure immediately post liver transplant

Limited therapeutic resources.

## **OP session general surgery**

### **Anterior approach of the lombar vertebral column, multidisciplinary team**

**M. Mitrica, A. Dima, A. Chirtes**

The paper presents the constitution of a mixed team I neurosurgery - general surgery capable to approach complex pathology situated at the anatomic line between the two specialities.

We present two cases who were treated with this approach and we hope to be the beginning of a constant collaboration, beneficial for the patients of our institution.

The presented cases are patients with disc infections with anterior extension in the psoas muscle.

Which requires an anterior transperitoneal approach. This approach isn't specific for the neurosurgery, being necessary the presence of the visceral surgeon.

### **Ventriculo-cardiac drainage**

**C. Nastase, M. Marinescu, M. Mitrica**

Definition: Ventriculoatrial shunt placement enables cerebrospinal fluid (CSF) to flow from the cerebral ventricular system to the atrium of the heart.

Objectives: The primary consideration in any patient who may undergo ventriculoatrial shunt placement is whether the patient has symptomatic hydrocephalus that necessitates CSF diversion. We have to rule out the peritoneal space as an acceptable location before selecting the cardiac atrium as the site for the distal catheter

Material and methods: We have treated in our service two patients, with multiple revised operations of ventriculo-peritoneal shunts. It was necessary to convert VPS in VCS, because the peritoneum lost the capacity to resorb the CSF.

Conclusions: The both patients have good results and VCS

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remains an alternative way for CSF derivation in all hydrocephalus cases.

Abbreviation: VPS – ventriculo-peritoneal shunt; VCS – ventriculo-cardiac shunt; CSF – cerebro-spinal fluid

### **Retroperitoneal abscess – A 6-year review**

**C. Mușat, R. Nica, O. Albița, C. Duțu, T. Rogin, D. Orosan, C. Cîrlan, Elena Starcu, A. Lică, A. Luchian, C. Blăjuț, C. Bețianu, Madalina Piron, Lavinia Răboj, R. Dragoș, F. Săvulescu**

**Introduction:** Retroperitoneal abscesses are rarely encountered in the usual medical practice, due to the scarce manifestation of the early stages, more often the patients' referring to the E.R. with full onset of the symptoms and signs. The condition is usually severe and the diagnosis is late, resulting in sepsis and high morbidity and mortality rates.

**Methods:** Between Jan-2010 and Jun-2017, 21 patients were admitted for retroperitoneal abscesses in our department. The most common causes were pancreatic and colorectal, while a few cases (3) remained of unknown origin. The approach was by open surgery in 9 cases, minimally invasive in 7 cases and both – in 5 cases.

**Results:** All the patients have been discharged. There was no in-hospital mortality. The readmittance rate was 23% (5 patients). The approach methods and clinical outcome are discussed.

**Conclusions:** Retroperitoneal abscesses remain a clinical and therapeutical challenge due to the late diagnosis and the severe manifestations – both general (sepsis, debilitated patients) and local. Open surgery and percutaneous drainage are analyzed and compared regarding the indication, timing and outcome.

### **Abdominal hemangiopericytoma – case report**

**R. Nica, Florina Vasilescu, A. Zaciu, Cristina Sandu, R. Dragoș, Madalina Piron, Lavinia Răboj, F. Săvulescu, C. Mușat**

**Introduction:** Hemangiopericytoma is a type of vascular malignancy that are arising from mesenchymal cells with pericytic differentiation. Diagnosis is often controversial because the immunohistochemical profile is uncertain. Differential diagnosis is done with fibrous histiocytoma, mesenchymal chondrosarcoma or synovial sarcoma.

Abdominal hemangiopericytoma is a very rare tumor, with the incidence being highest in adults in the 5th age and is rare in children (less than 10% of all cases of hemangiopericytomas).

**Material and methods:** The authors present the case of a multiple patient operated for colorectal abdominal hemangiopericytoma in the period 1992-2016 (patient 43 years of age at the time of first surgery). Serious tumor tumors were performed at variable distances with recurrences at decreasing periods.

**Results:** Between 1992 and 2016 surgical treatment was accompanied by chemo and radiotherapy. It is remarked that relapses occurred at increasingly small periods, and the character of tumor metastases was increasingly aggressive, with occlusive and haemorrhagic tendencies requiring emergency surgeries. Although the most frequent place of remote metastasis is lung and bone, our patient presented metastases both enterocolic occlusive-haemorrhagic, peritoneal, and hepatic (large) metastases.

**Conclusion:** Abdominal Hemangiopericytoma is a malignant, multi-relapse tumor, surgically accessible occlusive-haemorrhagic tumor, but resistance to radio and chemotherapy.

### **Saphenoperitoneal shunt role in abdominal wall pathology of cirrhotic patient**

**O. Albița, T. Rogin, O. Sima, V. Vârjoghe**

Chronic liver disease, especially cirrhosis, complicates with ascites. The degree varies from mild to severe, intractable ascites with no response to classic diuretic drugs. When this patients develops an incisional hernia or umbilical hernia, with incarceration symptoms, the surgeon faces new challenge in surgical treatment. Saphenoperitoneal shunt is regarded as an excellent, cheap and effective method to lower the ascites pressure and to obtain best conditions before the surgical treatment. Patency of long saphenian vein and competence of saphenofemoral junction are mandatory. We treated 5 patients with severe ascites and abdominal wall pathology. All patients presented good results, with progressive abdominal pressure lowering, followed by an adequate surgical treatment one month later.

## **Surgical treatment in complicated colonic diverticulitis**

**F. Săvulescu, C. Cîrlan, C. Blăjuț, I. Budrugaec, R. Marin**

Colonic diverticulosis is one of the most common diseases of developed western countries. Although most people who have diverticular disease remain asymptomatic, up to a quarter of patients with diverticulosis ultimately progress to diverticulitis, and about 15 % of diverticulitis patients develop severe complications, such as abscess, phlegmon, fistula, obstruction, bleeding, or perforation; all these conditions generally require surgical treatment. Hinchey's classification of acute diverticulitis goes from a phlegmon (stage Ia), localized abscesses (stages Ib and II), free perforation with purulent (stage III) to feculent peritonitis (stage IV). Management of the diverticular disease of the colon has seen progressive success owing to the advances of the diagnostic methods, intensive care settings, minimal access techniques and surgical experience. The optimal treatment of acute complicated diverticulitis is a matter of debate and has undergone significant changes. Currently, the main focus of surgical treatment concepts is on controlling the emergency situation triggered by acute complicated colonic diverticulitis through interventional and minimally invasive measures. Treatment goals for diverticulitis, whether the patient is stable or with an acute episode, are to reduce the symptoms, prevent the recurrence and, whenever possible, to perform elective rather than emergency treatment.

Conclusion: Due to diversity in disease presentation, in many cases, optimal surgical treatment of acute diverticulitis remains unclear with regard to patient selection, timing, and technical approach in both elective and urgent settings. This review addresses the current treatment recommendations for surgical management of diverticulitis, highlighting technical aspects and patterns of care.

## **Total mesorectal excision in the treatment of rectal cancer**

**F. Săvulescu, C. Cîrlan, C. Blăjuț, I. Budrugaec, R. Marin**

Total mesorectal excision (TME) is a common procedure used in the treatment of colorectal cancer. TME addresses earlier treatment concerns regarding adequate local control of rectal cancer when an anterior resection is performed. The introduction of total mesorectal excision (TME) for rectal cancer has reduced local recurrence rates and improved oncologic outcomes, although complication rates such as

anastomotic leak have also been a consequence. Another benefits of TME are increased sparing of the anal sphincter, with a concomitant decrease in permanent stomas from abdominoperineal resection (APR) and that TME is a nerve-sparing dissection, less likely to lead to bladder and sexual dysfunction.

Conclusion: Total mesorectal excision is now the standard surgical approach to rectal cancer. Since its first descriptions, the ensuing discussion among surgeons and in training programs over what constitutes proper surgical technique for proctectomy with rectal cancer has led to a widely accepted and systematic approach to the surgery. This, in turn, has produced better oncologic outcomes compared with nonstandardized surgery, while maintaining acceptable morbidity and mortality rates. With the advent of neoadjuvant therapy for rectal cancer, many are questioning how this development may change the role of TME.

## **Transanal Endoscopic Microsurgery (TEM) in the surgical treatment of rectal cancer**

**F. Săvulescu, C. Cîrlan, C. Blăjuț, I. Budrugaec, R. Marin**

Rectal cancer treatment is complex, multidisciplinary and includes, in addition to radical resection techniques (gold standard), local excision techniques, derived products as well as specific oncological treatment.

Transanal endoscopic microsurgery (TEM) can be used as a curative operation for rectal polyps that are not amenable to colonoscopic resection. In addition, it may be used in selected patients with rectal cancer.

The following indications have been recommended by various surgical societies, including the American Society of Colon and Rectal Surgeons (ASCRS): lesions smaller than 3 cm mobile lesions, polypoid lesions, anatomically accessible lesions localized to the bowel wall (T1N0), lesions confined to the extraperitoneal region of the rectum, lesions occupying less than 40% of the circumference of the bowel lumen (however, the use of TEM for giant circumferential rectal adenomas has been reported), well-differentiated or moderately differentiated lesions and lesions not associated with lymphovascular invasion.

Its main feature is to avoid laparotomy, the opening of the abdominal cavity and the passage through it.

Conclusion: In summary we can define TEM as a truly minimal invasive surgical technique that, by utilizing a natural orifice, allows access to the rectum by avoiding the transperitoneal approach and the abdominal surgical scar.

This access route involves a substantially painless post-

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operative course, a lower risk of infection, a rapid recovery of normal physiological functions, a more early return to home and work activity.

### **The incidence of direct inguinal hernia in the era of minimally invasive treatment**

**C. Cîrlan, C. Blăjuț, I. Budrugaec, R. Marin, F. Săvulescu**

Over time, the data regarding the incidence of inguinal hernia have revealed that 25% of men and 2% of women develop a form of hernia. This data was obtained based on imaging investigations, on clinical findings and on clinical data collected after the surgical treatment. Minimally invasive surgery of inguinal hernias, besides the technical advantages for the patient and for the surgical team, allows inspection of the bilateral abdominal and pelvic wall. This last aspect determined the change of statistical data regarding the incidence of different type of inguinal hernia.

In this paper we will present the statistical data obtained in the Second General Surgery Department of Central Military Hospital for 3 years.

### **Management of ventral incisional hernia with Ramirez procedure**

**O. Albița, T. Rogin, O. Sima, V. Vârjoghe**

Incisional hernia may occur in more than 50% of median laparotomies, leading to giant wall defect. Several techniques have been proposed, with or without mesh but the main goal is to achieve low intraabdominal pressure. Ramirez's procedure (component separation) offers a solution to translate anterior wall flaps for a distance of 10-15 cm and to obtain reduced tension of suture line; various mesh placement is at surgeon disposal.

### **Patient – doctor communication and the medical internet**

**C. Dutu, O. Albita, C. Musat, R. Nica, T. Rogin, C. Carlan, C. Blajut, Elena Starcu, A. Luchian, F. Savulescu**

Patient – doctor relationship is the basis of any medical act, being grounded primarily in direct communication between them. Not less than 30 percent of malpractice cases are based on a communication error. There are "non technical skills" (leadership, communication and decision making) and

cognitive capacities whose development must be followed in addition to technical ones. Ignoring human communication in the communications era can cause serious harm not only to the patient but also to the physician.

The paper reviews the principles underlying the communication between the doctor and the patient (confidence in the surgeon, his competence, the patient's compliance and the agreement on the treatment to be applied) and their application in conditions where at least 90 percent of the patients approach Internet before a visit to a doctor.

Internet use by patients as a source of information on health and disease is rapidly expanding with obvious effects on the doctor-patient relationship. Medical websites and daily Internet health-related information searches allow for enormous and rapid change in health behavior. The present article reviews this impact from different angles, based on self-administered questionnaires.

This impact includes incorrect information, commercial interests, unnecessary tests and treatments resulting from patient's Internet search and language and cultural differences.

Using the Internet as the first source of information can only be useful as a first informational stage in patient-to-doctor communication and not as a substitute for it.

### **Training of surgeon – from disciple to resident**

**C. Duțu, C. Tiu, Andreea Gherghe**

The last 20 years has fundamentally changed the character of general surgery and the experience of residency graduates. Current issues with general surgical residency are: inadequate surgical exposure in medical school, highly variable teaching effectiveness at different instructions: significant dependence of training outcomes on program size, reduced breadth, complexity and techniques of resident operative experience.

This paper is a part of the „Surgical Train the Trainers” project. Institutes in Spain, Germany, Hungary and Romania are studying the methods of education of surgical residents in their countries organized by a consortium to analyze the different methods of surgical education and provide the most successful procedures for practical application for the surgical community in their countries.

Following the European working time directive we have a shorter working week (48 hours – 2009 vs 56 hours -2007, vs 58 hours -2004)- less than 17,500 hours for all residency - 60% less than 10 years ago, with inevitable consequences:

decreased operative experience and diminution of trainer/trainee relationship.

Other challenges for residents are: reduced operating lists, increased cost of OR time, altered casemix and complex technology, changing public expectations.

Residents are educated by consultants, mentors, tutors according to their own pedagogical abilities – and need uniformed, structured methods.

In conclusion, the practice of general surgery is undergoing significant change.

The rapid adoption of new technologies, the integration of traditional and minimally invasive operations and the exponential expansion of the knowledge and variety of procedures that trainees must learn dramatically alter the landscape of surgery.

### Testing the risk factors for breast cancer

**R. Nica, J.C. Mușat, V. Zahiu, Alexandra Mihai, Florina Vasilescu, Mădălina Piron-Dumitrașcu, Lavinia Răboj, R. Dragoș, Silvia Nica, F. Săvulescu, D. Cimponeriu**

Introduction. Tumors of the mammary gland are a heterogeneous group of diseases at the genetic and phenotypic levels. The main genetic risk factors for these diseases are represented by mutations in proto-oncogenes

or tumor-suppressor genes.

Aim. The purpose of this study was to test the association of different risk factors with mammary tumors in Romanian women

Materials and methods. This study included women diagnosed with mammary gland tumors (n = 100) or considered clinically healthy (n = 100). DNA was extracted for each subject from 500 µl of peripheral blood. Mutations in three tumor -suppressor genes (e.g. BRCA1, BRCA2 and TP53) was tested with the PRONTO® BRCA kit and by indirect methods (e.g. high resolution melting curve analysis, SSCP or heteroduplex analysis).

Results. The most common types of tumors identified in this study were invasive ductal carcinoma (71%) and mixed ductal and lobular carcinoma (10%). In one samples from a patient with invasive ductal carcinoma was identified BRCA1 5382insC mutation with the PRONTO® BRCA kit and then was confirmed by indirect methods of analysis. In all other samples these methods of analysis did not reveal mutations in the investigated regions.

Conclusions. Invasive ductal carcinoma (71%) and mixed lobular and ductal carcinoma (10%) were the most common types of mammary tumors identified in this study were. The frequency of mutations with high penetrance in our patients with different types of mammary tumor tumors is reduced (1%).

## OP session urology, ophthalmology

### Laparoscopic approach for benign pathology of horseshoe kidney

**A. Aungurenci, V. Mădan, F. Rusu, O. Pacu, A. Iliescu, G. Picu, C. Stănescu, C. Iatagan, A. Rădulescu, V. Botea, L. Chirilă, M. Dinu**

Introduction: Horseshoe kidney is a rare congenital malformation, with an incidence of 0.25% in global population. Due to some anatomic specific features, stone disease and ureteropelvic junction obstruction syndrome are frequently encountered in patients that have this kind of malformation. In the last 2 decades the laparoscopic approach on horseshoe kidney had started to replace the classic open surgery with similar functional results and short postoperative recover period.

Materials and methods: Between January and March 2017 in

our clinic were admitted 2 patients with benign pathology on horseshoe kidney: a female patient with left ureteropelvic junction obstruction syndrome and a male patient diagnosed with a right junction obstructive calculus of 16/26 mm, with grade III hydronephrosis. Both patients were operated by laparoscopic approach: pyeloplasty respectively pyelolithotomy.

Results: Operative time for laparoscopic operations ranged between 160 and 240 minutes. We have not encountered intraoperative complications that could require the conversion to open surgery. Postoperative recovery was favorable for all patients, with rapid recover of bowel function and rapid discharge in 3-5 days postoperative. Functional recovery of the kidney after pyeloplasty was assessed by scintigraphy.

Conclusion: The laparoscopic approach for benign conditions

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in horseshoe kidney may be regarded as an efficient alternative for open surgery, with similar functional results and rapid postoperative recovery.

### **Definitive radiotherapy for patients with low and intermediate risk prostate cancer**

**G. Ricu, M. Matei, G. Balasa, M. Dumitrache, Alina Tanase, Vasilica Balabaneanu, Maria Vlasceanu, S. Vlad**

**Introduction:** Radiotherapy treatment protocols use prognostic factors to stratify patients into low-, intermediate-, and high-risk groups. These risk groups include patients with the same correlation between pathologic stage of disease and risk of recurrence. **Material and Method:** We present the indication for exclusive radiotherapy in low-risk prostate cancer patients (PSA < 10 ng/ml, Gleason score <6 and cT <T2a) and in patients with intermediate risk prostate cancer (PSA = 10-20 ng/ml or Gleason 7 or cT2b-T2c score) using modern radiotherapy technique with total doses between 74 and 78 Gy, with image guidance on intraprostatic fiducial gold markers.

We evaluate the results and acute/late toxicity obtained with modern radiation techniques, involving dose escalation and image guided radiotherapy.

**Results and conclusions:** External irradiation is an effective treatment option for patients with localised prostate cancer in low and intermediate risk group with an acceptable toxicity profile. The treatment is safe and well tolerated. Injecting a transperineal "spacer" gel between the prostate and the anterior wall of the rectum can limit acute and late rectal toxicity.

### **Ovarian-type epithelial tumors: a rare case of papillary serous tumour of low malignant potential of the testis**

**Florina Vasilescu, Rodica Bulata, M. Dumitrescu, M. Curea, L. Eftimie, Alexandra Calu, C. Mehotin, Liana Toma**

Serous papillary tumours of the testis and adjacent tissues are very rare neoplasms similar to the surface epithelial tumours of the ovary, representing a surprising and challenging finding in diagnostic procedures.

**Method:** We present the case of a 71 year old man with a left testicular mass measuring 4.5 cm. Under the assumption of a testicular malignant tumour, inguinal orchiectomy was performed.

**Results:** Histopathological examination revealed testicular parenchyma presenting a cystic lesion with intracystic blunt papillae lined by columnar epithelium, with hyperchromatic nuclei, areas of hobnail cells and rare mitoses. A focus of microinvasion was present. The underlying stroma had a fibrillar ovarian-like aspect. Immunohistochemistry presents the expression of CK7, EMA, PLAP, WT1, CA 125 and ER, calretinin positive in isolated cells and CEA, MOC 31, CK20 negative; Ki 67 was 10%. Final diagnosis was serous papillary tumour of the testis with low malignant potential-ovarian type.

**Conclusion:** Serous papillary tumour of ovarian type of the testis should be considered when the diagnosis of malignant mesothelioma is suspected. The microscopic appearance combined with immunohistochemistry are helpful for differential diagnosis.

### **Challenging cases in cataract surgery**

**H.T. Stanca**

**Purpose:** To show various intraoperative aspects of challenging cataract cases.

**Methods:** We are presenting several difficult cataract cases successfully operated by ultrasound phacoemulsification and other adjuvant instruments and maneuvers.

**Results:** We reached the therapeutic aim for all cases - to take out the opacified lens without corneal decompensation restoring the visual function and also the anatomical aspect of the globe.

**Conclusion:** The ultrasound phacoemulsification is the gold standard in cataract surgery, but challenging cases need an extensive armamentarium, the surgeon's experience being the most important tool.

### **New trends in Optical Coherence Tomography**

**H.T. Stanca**

**Purpose:** To value the Optical Coherence Tomography (OCT) as an essential diagnostic tool in ophthalmology and to show the new trends in OCT evaluation.

**Methods:** The optical coherence tomography (OCT) is a laser interferometry based equipment which is able to analyze the multiple layers that constitute the vitreous face, retina, RPE, Bruch's membrane, inner choroid and the optic nerve. The OCT had become a standard diagnostic tool for various diseases of the retina and the optic nerve in the last fifteen



years and nowadays the technology is facing us with fantastic acquisition speeds and great accuracies. We are presenting our experience with the spectral domain (SD) OCT.

Results: We are discussing different cases running through age-related macular degeneration, diabetic macular edema, macular dystrophies, glaucoma and We are showing how to use the OCT data and the new algorithms in daily clinical activity.

Conclusions: The OCT is a must have equipment in any ophthalmology unit and the new acquisitions in technology and interpretation have to be mastered in order to achieve the best results for our patients.

### **Perforated corneal ulcer with intraocular complications**

**M. Zemba, O. Musat, C. Stefan**

Purpose: to show the surgical solution for a cataract after a perforated corneal ulcer

Methods: surgical solution is shown in a video film

Results: visual acuity has improved from hand movement perception to 0.9

Conclusions: "step by step" approaching of a complicated case may allow us an easier solution than we think at first assessment

### **Corneconjunctival tumor – diagnostic and therapeutic difficulties**

**M. Zemba, O. Musat, C. Stefan**

Purpose: to show the diagnosis, preoperator assessment and surgical treatment for a corneconjunctival tumor

Methods: there is a review of clinical and paraclinical arguments for the diagnosis; surgical solution is shown in a video film

Results: two months postoperatively there is total functional recovery; 6 months postoperatively there is no sign of relapse of the tumor

Conclusions: the main treatment for corneconjunctival tumor is surgical; in very large tumors the surgeon must be able to realize partial excision of the wall of the globe, especially near the limbus and it is necessary to have

solutions to cover the area of conjunctival excision

### **High dose rate interstitial brachytherapy treatment for oral cancer**

**Alina Tănase, M. Dumitrache, M. Matei, C. Dumitru**

Introduction: High-dose rate (HDR) brachytherapy is a type of internal radiation therapy that delivers high doses of radiation from implants placed close to, or inside the tumour. Brachytherapy results in better dose distribution compared with other treatments because of steep dose reduction in the surrounding normal tissues. This therapy has been used for treating many types of cancer such as gynecological cancer, breast cancer, and prostate cancer but also head & neck cancer.

Materials: To enhance the role of this therapy in treatment of head & neck lesions, we will present our experience in 3D conformational interstitial brachytherapy planning for an oral cancer case, using BrachyVision software, a single 192Ir source and a GammaMed Plus afterloader. The procedure was performed in a team, involving the effort of the surgeon, radiation oncologist, pathologist, medical physicist and radiation therapy technician.

Methods: The case was a single-plan implant of 4 catheters, placed parallel to the incision. 3D treatment planning required CT simulation. The clinical target volume and the organ at risk (tongue, mandible, parotids glands, teeth, and skin) were defined. Source loading was performed 9 days after catheters implant and wound closure. A dose of 3.0 Gy/fraction were delivered once daily, during 6 days. Before brachytherapy, the patient has also undergone external radiation therapy with a dose of 58 Gy.

Results: The patient follow-up after six month reveal that the clinical response to treatment was very good, with no major complications. Nevertheless, patient complains about minor difficulty in swallowing and dry mouth.

Conclusion: For brachytherapy technique a meticulous planning is essential, to ensure adequate dose coverage of the tumor/surgery bed. With HDR brachytherapy, radiation is deposited inside the body, in the area of the tumor, thereby delivering a maximum dose while minimizing exposure to the surrounding healthy tissue. This is especially useful for advanced buccal mucosal tumors, or when the external radiotherapy is not longer an option. High-dose rate brachytherapy can also minimize the side effects that we may experience during standard radiation therapy.



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## OP session thoracic surgery, orthopedy, medical therapy

### Minimally invasive surgical treatment for malignant pleural effusions

**C. Nistor, M. Iliaș, D. Marin, Olivia Batog, A. Ciuche**

**Introduction:** Malignant pleural effusions (MPEs) represent a common complication which can occur in any neoplastic disease.

**Materials and method:** We performed a retrospective study aimed to establish the adequate treatment for malignant pleural effusions. 306 patients were included in this study, during the last 6 years, diagnosed and treated in the Thoracic Surgery Department of the Central Military Emergency University Hospital.

**Results:** Most patients underwent chemical pleurodesis with talcum powder (through thoracoscopic surgery or through a chest drainage tube), while for the rest of the patients, betadine was chosen as chemical agent for pleurodesis (through thoracoscopic surgery or through a chest drainage tube). The authors compare the results obtained with each chemical agent.

The most frequent cancers with secondary MPEs were lung cancers. The efficiency of the two methods was the same. The most used chemical pleurodesis procedure was the thoracoscopic surgery. The most used agent for pleurodesis was talcum powder.

**Conclusions:** Chemical pleurodesis with betadine is a safe procedure, which can be used intraoperative (thoracoscopic surgery) or through a chest drainage tube (for patients with major surgical risk). Chemical pleurodesis with betadine plays an important role in addressing MPEs because of its high therapeutic efficiency and lower complications rate when compared to other agents (talcum powder).

### Pancreatic pseudocyst – a rare etiology for bilateral pleural effusions

**Aurora Fera, N. Tănase, M. Iliaș, D. Pantile**

**Introduction:** Pancreatic pseudocysts usually develop inside the abdomen and in close relation with the pancreas. Under the action of the negative pressure inside the pleural cavity, these cysts can migrate inside the mediastinum and mediastinal-pleural fistulae may appear. The association of acute and chronic, local and general inflammatory phenomena generate a complex, sometimes dramatic,

clinical status.

**Materials and method:** We present the case of a 53-year-old male admitted with severe general status and severe dyspnea, symptoms installed over the last week before presentation to the hospital. Several paraclinic investigations were performed: CT scan revealing bilateral pleural effusion, paraesophageal fluid accumulation with no direct connection with the pancreatic duct, laboratory exam finding leucocytosis and normal pancreatic enzyme levels.

**Results:** Surgical treatment has been performed, in several stages: both pleurae were drained with chest tubes (minimal pleurotomy), followed by the drainage of the migrated pancreatic pseudocyst through video assisted thoracic surgery. Medical treatment (rehydration, parenteral nutrition and antibiotherapy) had a major contribution to the patient's favourable outcome.

**Conclusions:** Medical and surgical treatment for migrated pancreatic pseudocysts require a multidisciplinary team. When establishing the therapeutic conduct, several factors must be considered: biological status, the type and stage of the pancreatic disorder, and the presence of abdominal, thoracic or general complications.

### Therapeutic options in primary spontaneous pneumothorax

**C. Nistor, A.M. Iordache, G. Gogolan, Olivia Batog, D. Pantile**

**Introduction:** Primary spontaneous pneumothorax is likely due to the formation of small sacs of air (blebs) in lung tissue that rupture, causing air to leak into the pleural space. Air in the pleural space creates pressure on the lung and can lead to its collapse.

**Materials and method:** The authors present several methods of surgical treatment for primary spontaneous pneumothorax. 82 patients were included in this study.

The most frequent surgical therapeutic options were minimal pleurotomy, lung apex resection and blebs resection, mechanical and chemical pleurodesis and limited parietal pleurectomy, except for the minimal pleurotomy, all other surgical procedures were performed using minimally invasive thoracic surgery (video assisted thoracic surgery).

**Results:** Observing the postoperative outcome, the authors have elaborated several algorithms for surgical treatment

for this condition (primary spontaneous pneumothorax).

Conclusions: Minimally invasive thoracic surgery is the most utilized surgical procedure for primary spontaneous pneumothorax, giving the best results with the shortest hospital stay.

### **Stabilization of post traumatic flail chest and fractured sternum using nuss procedure for pectus excavatum**

**A. Ciuche, D. Pantile, D. Marin, C. Năstase**

Introduction: We present the case of a patient with a massive flail chest sustained in a car accident. Multiple rib fractures and a sternal transverse fracture were observed. We will describe a flail chest stabilization by minimally invasive repair of pectus excavatum (MIRPE), employing a Nuss bar.

Materials and method: A 40-year-old male patient suffering from shock, splenic rupture, post traumatic C5-C6 and C6-C7 vertebral disc hernia and flail chest resulting from a car accident was brought to the emergency department. After emergency splenectomy has been performed in another hospital, the patient has been transferred in our hospital. The intubated patient was taken to the intensive care unit (ICU).

The flail chest resulted in dyspnea, which was treated by positive end-expiratory pressure on ventilator. As the patient could not be weaned from the ventilator, chest stabilization was deemed appropriate.

We decided on reconstruction of the flail chest by MIRPE.

Results: A three-dimensional computed tomography scan was taken to locate the fractured ribs and the sternum fracture. A Nuss bar was designed before surgery. The reconstruction operation was performed on the 5th day. With the help of a video-assisted thoracoscopic surgery, an introducer was inserted through the fifth intercostal space into the thorax.

The cervical lesions were addressed in the same surgical session, performing C5-C6 and C6-C7 discectomy, as well as C6 corpectomy and rahisinthesys with plate, spacer and titan screws.

The patient was extubated after surgery and was discharged from the hospital on the 14th postoperative day without any complications.

Conclusions: We conclude that surgical stabilization of severe flail chest and fractured sternum with Nuss bar by MIRPE is a safe and effective therapy in properly selected

patients.

This procedure can be performed in multidisciplinary surgical teams for polytrauma patients.

### **The modern treatment of wartime-like osteocartilaginous defects**

**M. Moga, Mihaela S. Lăpușneanu, M.E. Pogărașteanu, A.G. Barbilian**

Introduction: In military medicine, wartime wounds are a main concern for any surgeon. Without the context of theatre of operations situations, preparation for such events and expertise are gathered through the treatment of wartime-like injuries.

Materials and methods: This being said, we present the case of a patient who sustained a high-energy impact with a blunt metallic object (a steel pipe) at the level of his ankle. After initial treatment, the patient was left with a large osteocartilaginous defect at the level of the talar dome, along with a great amount of metallic debris. This impaired his ability to walk and run, and he was left with a painful joint that in time would evolve towards arthrosis and, in the end, a total loss of joint function. The decision was made to perform a mosaicplasty, a surgical technique in which we harvested bone and cartilage cylinders of various size from the patient's knee (non-weight bearing area), and used them to fill in the defect in his talar dome, thus restoring its original shape. During the same procedure we extracted most of the metallic debris.

Results: Following the surgery the patient was able to return to a normal pain-free life, and with a much better prognosis for the future.

Discutions: The mosaicplasty surgical technique, although primarily developed and used to repair the osteo-cartilaginous defects in the osteocondritis dissecans disease, may prove to be valuable for the military orthopedic surgeon, in the context of wartime traumatic lesions.

### **Rehabilitation in total paralysis of brachial post-traumatic plexus in adult – case report**

**D. Nedelescu, R. Alexandru**

Objective: The total plex brachial paralysis is a condition that can become invalid if not treated properly and on time. The aim of this case report is to underline the positive functional outcome and importance of rehabilitation in the total plex

brachial paralysis.

**Method:** We present the case of a 71-year-old hypertensive male with a history of ischemic cerebellar stroke (2013), prostate adenoma, who presented (12.12.2016) with motor deficiency of left upper limb, paresthesia at the same level, brachial-forearm hypotonicity and amyotrophy, vasculotrophic hand disorders and severe functional impotence.

We mention that the symptomatology occurred after a trauma (06/10/2016) by falling from the same level, not being associated with other lesions.

**Examining EMG (24.10.2016):** Advanced axonal lesion of the entire left brachial plexus with the lack of voluntary activity in most of the examined sites; poor activity only in axillary nerve and median stg.

After an extensive functional evaluation, the patient was integrated in a complex physical rehabilitation program, based mostly on kinesitherapy that initially followed stimulation of the paralyzed, denervated muscular tonus in order to prevent muscle atrophy by passive, passive exercises, exercises to promote stretch-reflex. With the increase in muscle contraction capacity, it was desired to increase muscle strength by using passive-active exercises, analytical exercises for each muscle, isometric and isotonic exercise with progressive resistance to achieve this goal. Of great importance was the prevention and treatment of vasculotrophic disorders. As a last resort, kinetotherapy has

proposed to regain the functionality and ability of the upper limb.

Also very useful were electrotherapy sessions – electrostimulation low frequency exponential currents for the main affected muscular groups and toning massage.

The patient had 3 admissions (December 2016, February and July 2017), 11 days each, in which it was possible to monitor the evolution and adapt the physiokinetotherapy program. During the complex rehabilitation program, the patient continued the symptomatic and neurological treatment.

**Results:** Following the rehabilitation program initiated, it was aimed at improving the proximal-distal volunteer motor control, increasing muscle tone and muscular strength, improving vasculotrophic disorders and significantly improving the strength and left hand fineness.

**Examination of EMG (27.04.2017):** Net improvement of neuromuscular function in electrophysiological and needle testing compared to previous examination.

For a favorable functional prognosis, at each discharge we recommended daily exercise.

**Conclusion:** The goal of rehabilitation in total brachial plexus paralysis is to improve and maintain functional independence, social reintegration and improvement of patient's quality of life.



## STUDENTS PRESENTATIONS



### OP session students 1

#### Specific actions of thyroid hormones on systems and organs

Anca Andrei

**Introduction.** Thyroid hormones have a very important role in the human body because they raise the basal metabolism and the consumption of energy, they stimulate neurogenesis and myelinisation, cortical tonus; they also have a role in morphogenetic processes of growth and differentiation, both cellular and tissular, this action being pregnant in the nervous system.

**Analysis.** As far as their functions are concerned, thyroid hormones have the following roles: they raise the metabolic actions in all the tissues in the body, thus being able to increase the basal metabolism with 60-100%; they stimulate the rate of protein synthesis and catabolism. Thyroid hormones also stimulate the growth and development of the brain during the fetal-life and first years of postnatal life. Moreover, they increase the intestinal absorption of glucose, hepatic degradation of glycogen, the synthesis of glycogen, but also the peripheral use of glucose. The global effect is hyperglycaemia. The increase of thyroid secretion lowers the concentration of cholesterol, phospholipids and triglycerides in the plasma; the oxidation process of fats in the cells is accelerated. The increase of tissular metabolism stimulates the production of heat, which leads to the necessity of eliminating it, thus being accelerated the cutaneous blood flow.

**Conclusion.** To sum up, the thyroid hormones main functions on systems and organs are: the hyper-secretion of thyroid hormones raise the force and the frequency of myocardial contractions, it stimulates the pulmonary ventilation and the respiration rate, due to the increase of basal metabolism and the consumption of oxygen. In addition to this, the high secretion of thyroid hormones stimulates the appetite, the secretion of digestive juice and the motility of gastro-intestinal tract.

#### Physiology and pathophysiology of physical activity

D. Cojocaru, M.C. Chițu, F.R. Badea, G. Pariza, M. Simion

We consider this subject is accessible to a student who has just finished the first year of Medical School, so this is why I chose to write about it. In this way, I would like to make my colleagues and those who will watch this presentation aware of the importance of having a healthy lifestyle and of the changes that occur in the human body while exercising.

In this project I will classify the efforts, the organ systems involved, but i will focus more on the muscular system, because it is of utmost importance in matters of the extent of metabolic processes. I will also present the characteristics of the muscle fibers depending on the type of physical effort.

A very important part is the modification of the structures and functions of skeletal and cardiac muscle induced by physical effort, which has mostly positive effects, but also negative effects.

Finally, I will insist on two of the most common pathologies amongst athletes who suddenly stop their activity that also affect common people who practice different sports for maintenance or for pleasure: Varicose Veins and Pectoral Angina.

#### The dietary supliments consumption for military students versus civil students

Denisia E. Dabija, Iulia M. Staicu, B. Savu

**Introduction:** In medical literature there are many studies about nutritive supplements consumption for military. Nevertheless there are no conclude dates about consumption for military or civil students. The aim of this study is to evaluate the prevalence of using dietary supplements for military students in comparison with civil students.

**Materials and methods:** A questionnaire will be handled to

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military and civil students alike. The dates obtained through this method will be processed by EPIINFO program.

Results: The 30 military and 30 civil students will fill the questionnaire so that the frequency of use for nutritive supplements and the expected effects will be followed. The results and the dates from medical literature will be compared, and afterwards will be established how many students used dietary supplements before high grade admission and how many began to use them after, and also which are the most frequent motivations to use this kind of products.

Conclusions: After completion of the study, we will draw conclusions and they will be present in the conference.

### **Significance of B12 hypervitaminemia: clinical and pathophysiological aspects**

**Andreea Mutu, M.B. Maftai, Marina Oțelea**

Hypercobalaminemia (high serum vitamin B12 levels) is a little understood anomaly, being considered until recently irrelevant from a clinical point of view, most of the studies having been focused on vitamin B12 deficiency. Ironically, hypercobalaminemia can be associated with vitamin B12 deficiency's signs and symptoms; in fact, it's about a functional deficiency, secondary to qualitative defects or tisular uptake.

The aetiological spectrum of high serum cobalamin levels comprises diseases with high morbidity and mortality, for which it is vital that we diagnosed them early: colon neoplasms, prostate neoplasms, hepatocarcinomas, and haematological malignancies (chronic myeloid leukemia, polycythemia vera, primary myelofibrosis, primary hypereosinophilic syndrome, acute leukemias), liver and kidney diseases.

The degree of elevation of vitamin B12 has been correlated in some studies with the size of certain solid neoplasms. In stage IV cancers in palliative care, prognostic value has been attributed to B12/C reactive protein index (BCI). A BCI greater than 40000 was associated with 90% mortality at 3 months.

In this paper we are going to review the actual data regarding B12 hypervitaminemia, the most frequent aetiologies and their pathophysiological mechanisms that lead to B12 hypervitaminemia and also the diagnostic approach of hypercobalaminemia in order to identify and exclude the aforementioned pathologies.

### **The effects of chronic intake of alcohol and the evolution to hepatocellular carcinoma**

**Denise M. Dina, Monica Grancea-Iancu**

Introduction: Europe is the region with the largest intake of alcohol per person, in the world. The alcohol induced hepatic disease has multiple manifestation levels of severity that often can coexist in the same patient.

Case report: 47 years old patient is admitted with morning and postprandial sickness, characterized by vomiting, lack of appetite and loss of approximately 5 kilograms, in the last month.

On the clinical exam, the patient has a good general state, afebrile but with subicterical sclera. The abdomen is soft, and pain responsive in the right hypochondrium and epigastrium.

The liver has its inferior border at approximately 8 cm. under the costal arch.

The laboratory exams indicate elevated result of hepatocellular carcinoma tumoral markers.

There are also modifications that diagnose pancytopenia and hyperbilirubinemia.

Results: While hospitalized, the treatment of choice consisted of Ranitidina, Gastrofai and Arginina, the general condition of the patient having turned a more favorable direction than in the moment of admission. Alarmingly, the patient experienced episodes of withdrawal as a result of the lack of alcohol intake.

Conclusions: Patient's evolution is currently monitored. The correspondence between the alcohol intake history and the hepatocellular carcinoma is made with the help of the alpha-feto protein, the most significant tumoral marker for this pathology, with elevated results in this patient's case.

### **Kainic acid intracerebellar repeated administration – A chronic mouse model of generalized dystonia**

**V. Moroza, Denise C.M. Zahiu, Laura Georgescu, Ioana Georgescu, A. Steopoaie, A. Pana, Ana M. Zagrean, Daniela Popa**

Dystonia is a neurological disorder involving abnormal cerebellar signaling, as well as dysfunctions in the basal ganglia and in the cortico-thalamo-cerebellar loops. Acute or 48 hours continuous intracerebellar administration of kainic acid was proved to induce dystonic motor behavior. We demonstrated in our experiment that repeated applications of kainic acid into cerebellar vermis of mice for 5 consecutive

days generate constant and reproducible dystonic motor behavior.

No epileptiform activity was recorded on electrocorticogram during the dystonic postures or movements. This new mouse model of dystonia can be used to assess the role of the cerebellum, as well as the role of motor and sensory cortex in the pathogenesis of dystonia.

### **Pulmonary thrombembolism**

**Filofteia A. Ghilencea, B. Savu**

**Introduction:** Pulmonary embolism is the clinical entity, determined by the embolization of venous or right cord thrombi in the pulmonary arteries.

**Material and method:** The study of the specialized literature allowed the identification of the latest pulmonary embolism diagnostic algorithm based on exclusion and confirmation tests. It also follows from this study that the treatment of pulmonary embolism (produced in 90% of cases of deep vein thrombosis (DVT) located in the lower limbs or pelvis) should be guided by stratification of the risk of death and consideration should be given to the other comorbidities.

**Conclusions:** Pulmonary embolism is difficult to diagnose. There is now a safer diagnostic algorithm. Anticoagulation is the central therapeutic element, and thrombolysis is indicated in life-threatening pulmonary thrombembolism.

### **The diagnosis and the prevention of sudden cardiac death in hypertrophic cardiomyopathy**

**Adriana E. Rosca**

**Background:** Hypertrophic cardiomyopathy (HCM) is the most frequent hereditary heart disease, with a prevalence of 1:500.

**Methods:** In this scientific work, we summarize the information regarding the diagnosis and the prevention of sudden cardiac death, using a selection of articles and guidelines relevant to the clinical practice.

**Results:** Over 1400 mutations on 27 genes determine the phenotype of HCM. Two thirds of the cases are hereditary and genetic testing may be used as screening in families with HCM. The mutations affect most frequently the sarcomeric structures, leading to the specific histopathological aspect of fibrosis with myocardial fiber "disarray". The diagnosis is based on echocardiography and/or cardiac IRM discovery which can differentiate between the two forms of HCM: a

more common, obstructive type (OHCM- 70%) and the non-obstructive type (NOHCM - 30%). The main symptoms are: dyspnea, angina pectoris, palpitations, dizziness and sometimes syncope. Sudden heart death may be the first sign of HCM, especially in young asymptomatic adults.

**Conclusions:** A correct diagnosis and the risk stratification in regard to the need of an implantable cardiac defibrillator (ICD) may be of life-saving importance.

### **The aesthetic treatment of dental dyschromias**

**Cozmina M. Cîrdei, Cristina Gurau**

**Introduction:** Dental dyschromias are a well defined clinical entities, commonly encountered, caused by a multitude of local and systemic factors which can pose problems of physiognomy, the specialist being called to find out the causes and to solve the problem. For treating discolourations, multiple procedures can be indicated, from simple manual or professional brushing to teeth whitening or the application of composite resins veneers.

**Material and method:** This paper presents the current techniques used to treat dental dyschromias:

- the current teeth whitening techniques, the factors affecting it, patient's perception, indications, contraindications and its possible adverse effects. Teeth whitening is a conservatory solution for solving mild and moderate dental dyschromias occurring on vital or devitalised teeth.
- the veneer procedure which is used to solve some of the aesthetic defects by covering the entire vestibular face of the tooth with a physiognomic veneer. This method requires a minimum removal of the tooth enamel from the vestibular surface of the teeth.

- the manual and professional brushing which has a positive influence on the dental-periodontal structures, its objectives being to remove and interrupt the dental plaque formation and maturation cycle, to remove food scraps from dental surfaces and extrinsic colouring materials.

**Objectives:** This paper aims at orienting the patients towards choosing a correct treatment and with a minimal risk of dental dyschromias depending on its aetiology, depending on its dental periodontal status, raising awareness of the need for applying this type of treatment, its possible adverse effects.

**Discussions and conclusions:** The data provided attest the safety factor of the treatment followed strictly under medical supervision and once the importance of this safety factor is established, the success of a treatment for dental



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dyschromias by whitening is guaranteed. Teeth veneers made of composite resins and ceramic masses started to play an important role in Dental Cosmetics, the number of the situations suitable for this type of interventions being pretty good.

### **Multiple Casualties Incidents – The importance of early specific training of military medical personnel**

**T.C. Mureş, Maria M. Ancuţa, R.A. Zamfir, B.S. Zamfir**

Introduction: MCI has always been a challenge even for well-developed health systems. The geo-climatic and socio-economic current conditions clearly predispose us to increased incidence and magnitude of such events. Moreover, the current trend of the evolution of armed conflict to asymmetric and unconventional confrontations causes increasingly frequent incidents which involves civilians in armed military conflicts, representing an additional risk factor. In this context, the contribution of military medicine at the management of civil MCI can be particularly valuable both in human terms and in terms of capabilities.

Material: The sudden and unexpected onset, the major destructive effects, unpredictable developments and major impact both physical and psychological on the intervention personnel are the main features of the MCI. These characteristics superimposed over a high level of current activity destabilize the health systems. To ensure an adequate emergency response, procedures are conducted after specific and complex operation plans that differ substantially from those used in the current work routine. The knowledge and application of these procedures accurately by the staff involved is essential to ensure actional interoperability between the structures participating in the

intervention.

Conclusion: Acquiring, maintaining and improving knowledge and skills needed to perform, in conditions of extreme physical and mental stress, the complex activities provided in emergency response procedures require completion of a gradual and continuous program of specific training. Ideally, this program will begin as early as possible in the medical career.

### **Basic medical attention in military operations**

**S. Politic, B.M. Cornea**

In this project I will present the main stages of the TCCC (Tactical Combat Casualty Care) and how the medical staff reacts when a victim appears in an armed conflict. On the battlefield, the pre-hospital period is the most important time to care for any combat casualty. A significant percentage of deaths are potentially avoidable with a good treatment.

For a better understanding I will start to explain the term TCCC and what does it mean, the 3 major targets: treat the casualty, prevent additional casualties, complete de mission. The medical treatment in the combat zone suffers some modifications from the civil one due to extreme conditions. The tactical decisions are combined with the medical.

I will present elementary notions about how to stop haemorrhage, stabilization of the victim for transportation, defensive actions to limit the number of casualties and methods for victim transportation.

We will insist on discussing about the medical actions necessary for victim stabilization till it will be transported to the next medical echelon, tactical actions which comes to ensure the medical treatment and at the same time to limit the number of the victims.

## **OP session students 2**

### **Diagnosis and treatment of chylothorax**

**F.M. Caplea, D. Pantile**

Introduction: The chylothorax defines a type of pleurisy resulting from the accumulation of chyle fluid in the pleural cavity. The main lymphatic collector is the thoracic duct, the

shedding of which occurs at the confluence of internal jugular veins and subclavicular veins. The lymphatic system originates from the lateral mesoderm, as a result of the development of the 6 lymphatic buds, originating in the inner layer of the nearby veins.

Material and method: This presentation is a synthesis of the works in the medical literature, which aims to highlight the



importance of a correct treatment of the chylothorax, in order to maintain the essential function of the lymphatic system in the homeostasis of the body. Diagnosis of chylothorax is based on specific and non-specific investigation methods, of the lymphatic system, and their association with a simple biochemical and cellular analysis can guide us to establish the diagnosis of chylothorax.

The treatment of chylous effusions varies depending on the cause and magnitude of lymph loss, which is why it is established in three stages: conservative, hormonal and surgical.

**Objectives:** The purpose of this work is to understand the importance of the correct diagnosis and treatment of the chylothorax, both for the relief of respiratory and cardio-circulatory phenomena, as well as to prevent the occurrence of repercussions from the immune and nutritional point of view.

**Discussions and conclusions:** Although there is a variety of paraclinical investigations able to guide us to the diagnosis of chylothorax, its incidence has remained unchanged, some authors claiming a slight increase due to iatrogenic trauma.

### **Risk factors, diagnosis and surgical treatment of colon cancer**

**Corina M. Poșircă**

**Introduction:** The colon cancer represents uncontrolled malignant transformation of the mucosal epithelial cells which tap the internal colonic lining face.

**Diagnostic methods:** At the bases of colon cancer diagnosis are different predisposing factors and some examples would be: colorectal polyps, various genetic factors (familial colonic polyposis, Lynch syndrome), nutritional factors (abuse of animal fat and proteins, red meat, alcohol, excessive caloric intake), inflammatory bowel disease (Crohn's disease, ulcero-hemorrhagic rectocolitis).

Nowadays, the colon cancer represents the second cause of cancer death in civilized countries. The election method for colon cancer detection is colonoscopy. With the colonoscope the rectum, colon and also the last portion of small intestine can be examined. Besides colonoscopy, screening can also be completed using sigmoidoscopy, computer tomographic colonography and nuclear magnetic resonance.

**Treatment:** Surgical treatment of colon cancer is determined by tumor localization, local and distant tumor spreading rate, the patient status and the associated comorbidities. Depending on the localization of the cancer, the possible

surgical procedures include: left hemicolectomy, transverse colectomy, right hemicolectomy, sigmoidectomy, subtotal colectomy.

**Evolution:** Early diagnosis of this type of cancer means a favorable evolution for the patient. Lifestyle modifications, learning about genetic factors and the early discovery of colorectal polyps are also current preventive methods of reducing the risk of colon cancer.

### **Synchronous rectal and gastric adenocarcinomas. Case presentation**

**Anca I. Chetroui, M.C. Chițu, Florina R. Badea, G. Pariza, M. Simion**

**Objectives:** The development of synchronous colon and stomach cancer is particularly rare, accounting 3 to 5% of gastric cancer patients. The incidence of multiple primary adenocarcinomas in most of the studies was under 4.3% of gastrointestinal tumors.

The aim of this presentation is to review the management of patients with synchronous lesions, and to draw conclusions regarding their optimal diagnosis, treatment and evolution.

**Methods:** We report the case of a 67 year-old patient who presented lower gastrointestinal bleeding, transit disorders (constipation) and weight loss. Colonoscopy revealed a bleeding rectal mass of 6-7 centimeters, at 12-13 centimeters distance from the anus.

An abdomino-pelvic computer tomography was performed and no other pathological changes were identified in the gastrointestinal tract. An anterior resection with end-to-end colorectal mechanical anastomosis was decided in view of the diagnosis of rectal cancer.

During the operation, inspection of the abdominal cavity incidentally revealed the presence of gastric cancer and a liver tumor of 2/2 centimeters with a hemangioma aspect, on the underside of the left hepatic lobe. Subtotal gastrectomy with Billroth II end-to-side gastrojejunostomy and an Omega loop and Braun entero-enterostomy were performed.

**Results:** Histopathological examination revealed a moderately differentiated gastric adenocarcinoma (pT3N2) and a well differentiated rectal adenocarcinoma (pT2N0), both with lymph nodes metastases, and a hepatic hemangioma.

Nine months after the surgery, there is no evidence of recurring disease.

**Conclusion:** The synchronous carcinomas detected in a

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gastric cancer patient are most frequently located in the colon and rectum, followed by the lung, esophagus and liver. Considering that the incidence of synchronous cancers is increasing, the present study cautions the necessity for a detailed and accurate preoperative staging, imagistic investigations and intraoperative examination to identify multiple primary tumors, in order to ensure an appropriate care, management and surgical intervention for these patients.

### **Difficulties in diagnosis and treatment of cholangiocarcinoma**

**A.D. Comber, M.C. Chițu, A. Mărginean**

**Introduction:** Cholangiocarcinoma or bile duct cancer is characterized by the presence of tumors that develop from the intrahepatic or extrahepatic biliary epithelium.

**Method and materials:** We report the case of a 78-years-old patient who has been admitted in our clinic for complaints of pain in the upper abdomen and mesogastrium for two weeks and was scheduled for surgery. The lab results showed altered values of certain parameters (white blood cells, ESR, bilirubin, urea). Imaging revealed a dilated bile duct, a distended gallbladder and gallstones of about 2 cm. Cholangiocarcinoma was suspected but a proliferative process of the gallbladder with lymphadenopathy in hepatic hilum was not dismissed.

**Results:** The decision was decided intraoperatively, depending on local conditions. The tumor was invading the surrounding organs making it impossible to resect. Instead a cholecysto-gastroanastomosis was performed which showed a slow favorable postoperative evolution.

**Conclusions:** The biliary tract tumors generally have a poor prognostic with a low survival rate, independent of their status at the detection.

### **A severe complication of perforated ulcer**

**C.A. Ciobanu, M.C. Chițu, Florina R. Badea, Ș. Bogdan**

**Introduction.** Because of the success of medical therapy in the management of peptic ulcer disease (PUD), surgery currently plays only a very limited role, and elective peptic ulcer surgery has been virtually abandoned. The most common complications of PUD include bleeding, perforation, penetration and gastric outlet obstruction. However, the annual incidence of ulcer perforation is on the

order of 4 to 14 cases per 100,000 individuals.

Therefore, nowadays the surgical treatment and the postoperative care of perforated ulcer represent a challenge for the young surgeons.

**Case report.** We report a case of a 40 year-old patient who presented febrile state and colicky pain on the right flank and hypochondrium, with irradiation in the right shoulder. The symptoms began after an emergency laparotomy for perforation of duodenal ulcer, 3 weeks before this event, but the diagnosis and postoperative care were poor. He was submitted to our hospital unit, where an abdominopelvic computer tomography revealed a secluded subphrenic hydroaeric formation, of a cranio-caudal diameter of 180 millimeters. Also, the liver tests were modified and the blood count indicated an infectious condition. The antibiogram was positive for streptococcus D group and fungi.

**Results.** The diagnosis was interhepatophrenic abscess and the surgical indication was median laparotomy with evacuation and drainage of the abscess and abundant lavage.

**Postoperative evolution.** The postoperative evolution was good, with normalization of liver tests and blood counts after 4 days and no fever after the antibiotic treatment.

**Conclusions.** The incidence of perforated ulcer is very low today. It must be diagnosed and treated early because of the risk of sepsis given by the acute generalized peritonitis. The rarity of this pathology entails the lack of experience of young surgeons. The lavage of the peritoneal cavity is extremely important for a favorable postoperative evolution. Among the complications of perforated ulcer, the intraperitoneal abscess has a severe evolutionary potential and surgery must be supplemented by antibiotic therapy.

### **Myxopapillary ependymoma – case presentation**

**Roxana F. Stefan, Madalina M. Iancu, R. Nica, Florina Vasilescu**

The aim of this paper is to present the case of a 22 years old patient, with a gluteal tumoral formation that was diagnosed as a myxopapillary ependymoma after the anatomopathological examination.

The particularity of the case consists in the absolutely atypical localization of the tumoral formation in the gluteal region, even though it is known that myxopapillary ependymoma is a benign tumor, with a slow growth, deriving from glial cells from CNS (gliom).

The difficulty of the diagnosis was represented by both the

lack of symptoms, despite the active tumoral process, and also the differential diagnosis with a pylonidal cyst.

Myxopapillary ependymoma is a rare tumor, which has an incidence from 0.05 to 0.08 per 100.000 people per year, with a higher occurrence in men.

The histopathological test reveals tislular fragments with tubular and bulgy structures, which contains positive tumoral cells for immunohistochemical tests for androgen receptor and S100 protein.

The presentation reveals suggestive pictures for the disease's states of evolution from the beginning to the post-operative status.

### **Notions of anatomy and embriology that underlie laryngeal nerves preservation techniques**

**A.G. Florescu, A. Tulin**

This paper aims to present the most important anatomical and embryological landmarks which should be taken into account during a thyroidectomy, and also, their usefulness in the preservation of laryngeal nerves. Thorough knowledge of the embryological development of thyroid and laryngeal nerves explains some constant relationships between different anatomical elements (e.g., the relative position of recurrent laryngeal nerve and Zuckerkandl tuberculum) and a look at the anomalies of the aortic arches offers us an explanation for variations in the course of the laryngeal nerves which are important to be considered during operation (e.g., "disfagia lusoria" which consists of a non-recurrent inferior laryngeal nerve on the right side of the body). This information forces the surgeon to perform certain techniques during thyroidectomy in order to minimize the risks concerning the injury of the superior laryngeal nerves (identification and dissection of the nerve before the ligation of the superior vascular pedicle, ligation of the vascular branches right on the thyroid capsule) and inferior laryngeal nerves (capsular dissection, delicate dissection of the nerve).

Moreover, there will be done a brief description of the intraoperative neuromonitoring technique (IONM), used to identify and dissect the recurrent laryngeal nerve and to assess a possible injury of it.

### **Difficulties in treatment of hydrocephalus caused by perinatal meningitis**

**E.S. Mîinea, M.C. Chițu, S. Stoica**

Introduction: Hydrocephalus (HCP) represents an abnormal accumulation of cerebrospinal fluid within the ventricles of the brain, displaying an estimated prevalence of 1-1.5%.

Hydrocephalus is caused by subnormal CSF reabsorption, or rarely, CSF overproduction. Statistically, it occurs in 20 % of the cases presenting subarachnoid hemorrhage and 1% of the cases presenting meningitis.

Subnormal CSF reabsorption comprises communicating hydrocephalus as well as obstructive hydrocephalus.

Case report: An 11 year old patient, previously diagnosed with perinatal meningitis, was presenting an obstructive hydrocephalus at the age of 3.

Following a surgical procedure in a neurosurgical service, namely a ventriculo-peritoneal drain, imagistic exams are periodically performed. During the examination, the 4th ventricle was notably isolated via an obstruction of aqueduct of Sylvius, the Magendie foramen, as well as a bilateral obstruction of the Luschka foramen.

An endoscopic procedure is performed to recover the flow through the cerebral aqueduct and for the perforation of the pellucidum septum.

Five months after the procedure, the patient had headaches, balance disorder and increased fatigue.

Imaging examination revealed tetraventricular hydrocephalus, for which a surgical procedure called ventriculo-cisternostomy was accomplished.

Postoperative evolution: After the procedure, a cerebral MRI showed a flow artifact at the floor of the 3rd ventricle and the cerebral aqueduct, which would account for the patients positive evolution.

### **Carpal tunnel syndrome**

**V.G. Mitrică, C. Năstase, M. Mitrică, M. Tudose**

Definition: Compression of the median nerve at carpal tunnel level.

The treatment consists in the decompression of the median nerve of the carpal tunnel by a surgical intervention (section of the flexors retinaculum ligament).

The paper presents 12 cases of patients with this symptomatology who were hospitalized in neurosurgery department from SUUMC Bucharest between June 2016 –

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June 2017. We will present information about the surgical procedure including accidents, complications, results and evolution of the patient.

### **The evaluation of certain physical parameters used to determine the volumic status of the critical patient**

**Maria C. Sanda**

**Introduction:** In this paper we aim to evaluate the volemic repletion of patients with burns (over 20%) using a number of physiological parameters: mean blood pressure, hourly diuresis, diameter and inspirational collapse of the inferior vena cava, oxygen extraction fraction, arterio-venous difference of PaCO<sub>2</sub>, lactate value.

**Methods and materials:** The study was made on patients who had skin burns on a surface area greater than 20%.

Volemic repletion was performed according to the Parkland protocol (4 ml/kg/area burned). Mean blood pressure was invasively monitored, diuresis was monitored on a daily basis, diameter and inspirational collapse of the inferior vena cava, oxygen extraction fraction, arterio-venous difference of PaCO<sub>2</sub> and lactate value were monitored at 4 hours for 48 hours.

**Results:** After analysis of the information we discovered a good correlation between the hourly diuresis, diameter and collapse of inferior vena cava and arterio-venous difference of PaCO<sub>2</sub>.

**Conclusion:** In the monitoring of volumic repletion of the patient, besides classical parameters, mean blood pressure and hourly diuresis, we consider that the diameter and the inspirational collapse of the inferior vena cava and the arterio-venous difference of PaCO<sub>2</sub> can bring extremely useful information for performing a proper volumetric repletion of the patient burned.



## NURSING PRESENTATIONS



## OP session nursing 1

### Mistakes in communications between nurs and patient

**B. Silvesan**

Communication is a key element, with a major and vital impact in achieving quality care. For a good communication between nurse and patient, honesty and sincerity are essential.

The problem of communication is that we do not always manage to convey the desired message. The errors that may arise in the communication nurse-patient may be due to internal factors (individual characteristics, type of personality, level of understanding, prejudice, religion) and external factors (social context, family context, the involvement of other health professionals, previous experiences).

The communication between nurses and patients may be adversely affected by certain factors: patient mistrust, difficulties of understanding, lack of attention, fear, etc. The communication nurse-patient must coincide with his current state, with possibilities of understanding and associated with supporting elements to positively influence the evolution of his illness.

The relationship nurse - patient involves mutual acceptance, an attitude of respect, warmth and empathy for the patient, it should not be limited to applying the treatment, but also to establish a psychological communication with him to help express his inner feelings.

### Detox Inc

**Mihaela Andrev, Narciza Draghichi**

Ladies' desire to look good involves many quests and exertions.

Sometimes internet is overcharged by information and it becomes a real "fashion" for a diet or a practice. A simple

search on Google offers thousand and one bright things, from VIP or from sports coaches. Only few are from nutritionists and less from doctors. It is obvious that everybody is acquainted with the detox process. Any excess or pseudoscientific approach can cause great damage, the greater the appearances may be misleading.

Besides the common myth: "It is a plant, it does nothing wrong", there are many other statements that cannot be verified or sorted so as to provide the assuredness of some valid arguments: what can be harmful to drinking natural juices and eating "healthy"? So, the concept started here in 2000's has become the latest fashion in terms of health. Out of control, things can become serious for the health of those who experience.

That's why it's better to carefully check before trying on your own skin in order to avoid unpleasant or serious consequences. Correct and verified information from authorized sources, and not the "reliable" ones, is the one that keeps us safe for "unlimited liability company" from the point of view of assuming the consequences by those involved in this industry.

### The management of radiation skin reaction

**Mariana Iscru, N. Bocaniala, A. Toma, S. Vlad**

**Objectives:** Radiotherapy is a treatment modality for many types of cancer and more than 75% of oncology patients will receive it as a component of their curative or palliative care.

The main goal of treatment is to irradiate tumor cells while minimizing damage to normal tissue, including skin. However, normal skin cells in the radiation field may also be damaged by radiation exposure. Typically, these are capable of self-repair, but a grade of side effects we usually find in our patients.

The manifestations of radiation skin reaction can range from erythema (redness, rash-like appearance), to dry desquamation (dryness, itching), and moist desquamation

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(tender, redness and exposure of the dermis) and necrosis.

Methods: We present few typical cases from our activity (breast cancer, head and neck cancer) focusing on clinical assessment, prophylaxis, general management guidelines and results of local treatment in acute radiation skin reactions.

Conclusions: The incidence of radiodermatitis with new technology (as 3D-conformal radiotherapy we use in our department) is lower than we observed with 2D technique (cobalt therapy), but 95% of patients have reported some degree of skin reaction to radiotherapy. The use of these guidelines for prophylaxis and treatment of radiodermatitis has effect on patient's quality of life.

## OP session nursing 2

### Tackling the problem of healthcare associated infections

**Carole Hallam**

Health care-associated infections are the most frequent adverse event in health-care delivery worldwide. Of every 100 hospitalized patients at any given time, 7 in developed and 10 in developing countries will acquire at least one health care-associated infection (World Health Organisation 2017). It is estimated that over 4 million patients are affected

by at least one healthcare associated infection across Europe each year (ECDC 2013). With the increase of antimicrobial resistance micro-organisms world wide infection prevention and control has never been so important.

In 2005, the Department of Health in England set ambitious targets for the reduction of MRSA and additional targets were set in 2007 for the reduction of *Clostridium difficile*. This presentation will share some of the initiatives that were developed and implemented in English hospitals to reduce our infection rates.





**SYMPOSIA, COURSES, ROUND TABLES**



## **The unseen face of the heart – right heart**

### **Systemic consequences of right ventricular failure**

**Ana M. Vintila**

Right ventricle failure can occur as an acute or chronic dysfunction in right heart or/and lung disease. It can develop as a spontaneous condition or can arise during an invasive or surgical maneuver. The acute decompensation of the right ventricle usually determines various degrees of hypotension, while the chronic decompensation generates a wider systemic response with lung, hepatic, renal involvement as well as inflammatory response.

The acute right heart decompensation is due to lack of compliance of both right ventricle and right atrium and the systemic venous response is immediate. In case of a chronic decompensation, the mechanism is more complex, with tricuspid annular distortion, right ventricle free wall hypertrophy and secondary tricuspid regurgitation.

Systemic consequences of right ventricle failure are usually represented by a wide spectrum of liver and renal failure syndromes as well as neurological vascular disturbances. An inflammatory response is noted and is associated not only to organ stasis, but also to bone marrow stasis.

A systemic response in case of right ventricle failure worsens the vital prognosis. Treatment of the underlying cause of ventricular failure might improve prognosis without annihilating the vital risk. One should consider liver and/or renal oriented therapies to alleviate this poor prognosis.

### **Pulmonary hypertension**

**Roxana Enache**

Pulmonary hypertension (PH) is a complex syndrome that may complicate various cardiovascular, respiratory and systemic disorders.

Once considered an orphan disease, currently things have changed due to major progress recent years have seen towards the understanding of this complex and multidisciplinary disorder. PH is defined as an increase in mean pulmonary artery pressure (PAP)  $\geq 25$  mmHg at rest as measured invasively by right heart catheterization.

The term primary PH was used to define an idiopathic increase in pulmonary vascular pressure while secondary PH was employed for all the forms of PH in which an underlying cause could be identified. Nowadays, according to common pathophysiological and therapeutic characteristics, 5 clinical groups of PH are defined.

Pulmonary arterial hypertension (PAH) or group 1 of PH includes besides idiopathic and heritable PAH, different other forms of PAH associated with connective tissue disorders, congenital heart diseases, toxins and drugs, HIV infection and portal hypertension. The common feature of these forms is the involvement of the distal pulmonary arteries.

In PH, the right ventricle (RV) has to adapt to a dual pressure overload composed by the fixed pulmonary vascular resistance and the pulsatile pressure overload due to the pulmonary artery stiffness. The RV function is the main determinant of outcome in PH patients. Based on clinical suspicion or the screening of high risk population, the echocardiography establishes the probability of PH while the right heart catheterization

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is mandatory to confirm the diagnosis of PH, to assess the severity of haemodynamic impairment and to perform pulmonary vasoreactivity testing in selected patients PAH and to assess the response to PAH treatment or to confirm disease worsening.

Other diagnostic tests are useful to identify the specific forms of PAH and PH and to test the exercise capacity of these patients. Treatment of PAH has evolved considerably over the past three decades, in part due to the advances in knowledge of the disease and the availability of agents that target known pathways in the disease pathobiology.

Despite this real progress, PAH remains a chronic progressive disorder. Current therapeutic approaches are medical therapy, interventional and surgical procedures.

## Right heart in the Cath lab

### V. Vintila

There are 40 years since first PCI was performed on man. In the classical era of the Cath lab, the vast majority of procedures were coronary angiograms followed by vascular resistance studies. The modern era of echocardiography diminished the role of pressure exploration of the heart in establishing the correct diagnosis of vascular malformations, with a shift towards therapy. We will look into special tricuspid techniques which avoid surgical repair or replacement of the valve and also in special

techniques used to close septal defects. Special tricuspid valve clips are currently under evaluation for patients with severe tricuspid regurgitation in which the cardiovascular surgical risk is severely elevated.

For children, closing techniques and devices for patent ductus arteriosus are widespread and avoid an unnecessary surgical closure and possible systemic complications.

Usually these special angiographic techniques request double vascular access, and because of the bulkiness of the delivery systems are still designed for femoral access.

## Right ventricular dysfunction in cardiac surgery

### O. Lazar

Right ventricular failure involves a great challenge due to the severity of this condition. In cardiac surgery RV failure is frequently associated with congenital disease and represent a high incidence among cardiac transplant patients when represent the main cause of graft failure.

Appropriate hemodynamic monitoring and advanced pharmacological and mechanical support can reduce perioperative mortality in RV perioperative failure patients.

Early postoperative care involves special measures to overcome compromised hemodynamics in RV failure cases.

## Urosepsis

### Internal medicine approach in urosepsis

#### Anca Ghiatau

Urosepsis is a severe infection of the urinary tract in females or/and genital tract in males. Almost a quarter of sepsis causes is the urinary tract. In order to

reduce mortality the patient has to be carefully managed interdisciplinary between the infectious diseases specialist, the urologist, the intensivist specialist with the aid of the microbiology laboratory and the diagnostic imaging tests.

The first 2 definitions of sepsis – 1991, 2001 – sepsis

implicated bacteremia or a clinic suspicion of sepsis and the addition of at least 2 of the SIRS (systemic inflammatory response syndrome) criteria. Sepsis was classified as severe when we add one of the MODS (multiple organ dysfunction syndrome) criteria, with the circulatory failure defining the septic shock.

In 2016 the definition of sepsis changed – Sepsis-3, excluding the SIRS criteria, due to the fact that it lacks specificity and sensitivity for diagnosis. Sepsis is life-threatening organ dysfunction caused by a dysregulated host response to infection.

The Sequential [Sepsis-related] Organ Failure Assessment (SOFA) score is used to assess organ dysfunction and the term severe sepsis is now out of use. Septic shock is that stage of sepsis associated with profound circulatory, cellular, and metabolic abnormalities and it can be clinically identified by a vasopressor requirement to maintain a mean arterial pressure of 65 mm Hg or greater and serum lactate level greater than 2 mmol/L (>18 mg/dL) in the absence of hypovolemia.

Sliding through this change in definition – the treating physician – must bear in mind that sepsis is life – threatening and a rapid diagnosis decreases mortality. This being said it is mainstay to search for a cause of persistent infection- proper and repeated imaging when necessary, careful clinical monitoring and prompt antibiotic therapy, urologic interventions, supportive and adjunctive treatment using the principles of early goal directed therapy.

## **Surgical management in urosepsis**

**D. Marcu, D. Mischianu, O. Bratu**

**Introduction:** Urosepsis is one of the most frequent causes of death world-wide, accounting for approximately 25% of all causes of sepsis. There are numerous pathologies that favor urinary tract infection. According to literature the most common pathogens involved in the appearance of urosepsis are: *E. coli*, *Proteus spp.*, *Enterobacter spp.*, *Klebsiella spp.*, *Pseudomonas aeruginosa* and Gram-positive pathogens like *Enterococcus*.

**Objectives:** The purpose of this paper is to underline the role of minimal invasive urological surgical techniques in the management of urosepsis, techniques that aim at eradicating the cause of the urosepsis.

**Material and method:** The control of the septic source is an important step in the management of this pathology, as well as volemic and electrolytes rebalancing and antibiotic treatment. A simple gesture like inserting a urinary catheter or suprapubic cystostomy may prove to have spectacular effects in patients with urinary retention. For the cases with ureteral obstacles and suspicion of urosepsis the insertion of a ureteral double j stent or percutaneous nephrostomy can significantly improve the patients general status. Ultrasound or CT guided puncture and drainage of a renal abscess should be preferred in patients with high operator risks and general altered state.

**Conclusions:** Urosepsis is an important medical and surgical pathology, its management being a challenge for physicians and imposing a good collaboration between different medical specialties like Urology, Imagistics, Intensive Care and Infectious Disease specialty.

## **Vital support in urosepsis**

**Ioana S. Oprea, D. Corneci**

**Introduction:** The urosepsis is a real health problem and occurs in 25% of sepsis cases. Therapeutic approach must be a multidisciplinary one, targeted both on the treatment of the cause but also to vital support, simultaneously with decreasing the damage of other organs and systems.

**Materials and methods:** Most important is the direct and aggressive individualized care that each patient received, including early bacteriologic cultures of blood and urine, early and correct antibioprofilaxis, restoration of blood pressure, protective ventilation and obtain adequate organ system function and interrupt the progression to multiple organ dysfunction syndrome.

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Results: After urological control of the infection source, we are using the volemic resuscitation therapy in order to normalize venous central pressure, blood pressure, diuresis and other biological markers. The patients are responding well at the treatment depending of initiation of volemic resuscitation, cardiovascular, respiratory and renal support, antibiotherapy etc.

Conclusions: Vital support in patients with urosepsis and urinary septic shock must be done in intensive care units and requires a good colaboration with urologist and infectionist.

The earlier you are treated for urosepsis, the better.

### **Antibiotic treatment of urosepsis: steps and criteria for monitoring treatment response**

#### **V. Gheorghita**

Introduction: Sepsis is a critical life-threatening organ dysfunction induced by a complex and dysregulated inflammatory host response to a microbial aggression. Urosepsis accounts approximately 25% of all sepsis cases, and is in most cases due to complicated urinary tract infections. The prompt recognition of this condition and appropriate management are associated with lower mortality. In one study, each additional hour of delay of the antibiotic treatment in urosepsis was found to decrease the survival rate by 7.6%.

Material and method: We did a review of the recent published data about management of urosepsis in order to describe the best treatment strategy of this condition, and to individualize therapy according to the epidemiological data reported in the Central Military University Emergency Hospital "Dr. Carol Davila" from Bucharest, Romania. There are defined four major objectives in the treatment of urosepsis: early diagnosis, early antimicrobials therapy, identification and control of the complicating factor in the urinary tract and specific sepsis therapy. The current antimicrobials treatment comprises two phases in the clinical practice. The empirical phase of the treatment extended for the first 72 hours which have to be fast and hit hard. The antimicrobials spectrum is tailored based on the individual characteristics of the patients: age, immune status, surgical history and antibiotic exposure in the last six months. In the second part of the treatment is recommended de-escalation or adjustment of antimicrobial spectrum according to susceptibility of isolated pathogen. Besides the traditional criteria involved in the treatment monitoring of septic patients, the procalcitonin-guided therapy is a better and safer algorithm in reducing the duration of antibiotic therapy with no effect on 28-day mortality.

In conclusion, the urosepsis is an emergent condition whose management requires an interdisciplinary approach, including urologist specialists, intensive care and infectious disease specialists, to individualize treatment and achieve the desired outcome.

## **Robotic surgery**

### **Minimally invasive robotic surgery in benign pathology of the esogastric junction**

**F. Săvulescu, C. Cîrlan, C. Blăjuț, I. Budrugaec, R. Marin**

In the era of mini invasive surgery, the surgical approach of the esogastric junction occupies an

important role, which regards both the results and the complete, long-term patient satisfaction. The main benign pathology of the esogastric pole includes hiatal hernia, gastroesophageal reflux disease, cardiospasm, oesophageal diverticula. At the moment, there is no room for doubt that minimally invasive surgery is the gold standard for treatment of achalasia and hiatal hernia. It is believed that robotically-assisted surgery's

most notable contributions are reflected in its ability to extend the benefits of minimally invasive surgery to procedures not routinely performed using minimal access techniques. The additional advantages afforded by the use of minimally invasive surgical techniques, coupled with the desire to retain the natural ergonomics and visual advantages of open surgery, have propelled the development and progression of robot-assisted surgery which may allow surgeons to overcome many of the laparoscopy surgery difficulties: loss of depth perception, loss of natural hand eye co-ordination, loss of intuitive movement and loss of dexterity.

Conclusion: We believe that using the robot for those “difficult” cases, such as giant paraesophageal hernias, would be of most benefit from robotic surgery.

### **Minimally invasive robotic surgery in benign gynecologic disease**

**F. Săvulescu, C. Cîrlan, C. Blăjuț, I. Budrugaec, R. Marin**

Minimally invasive surgery has revolutionized the management of benign gynecologic disorders over the last 30 years. However, the most substantial improvements have come with the advent of robotic surgery. Initially, traditional laparoscopy afforded less invasive approaches to hysterectomies, myomectomies and adnexal surgery. However, not all surgeons are comfortable with the laparoscopic approach due to its steep and extended learning curve, nor are all patients and procedures amenable to traditional laparoscopy. In fact, the majority of advanced gynecologic surgeries are still being performed through an abdominal incision. Several studies concluded that robotic myomectomy and to hysterectomy for benign lesions is superior to laparoscopic and open procedures in terms of morbidity rates, esthetic results, adhesions, recovery, surgical accessibility (when compared to laparoscopic and not open surgery), and quality of sutures.

Conclusion: The use of robotics for benign gynecologic conditions increased in the past years. As this

technology evolves and diffuses into practice, we should continue to examine the comparative effectiveness of robotic surgery in benign gynecologic disease.

### **Minimally invasive robotic surgery in malignant gynecologic disease**

**F. Săvulescu, C. Cîrlan, C. Blăjuț, I. Budrugaec, R. Marin**

Robotic surgery for the management of gynecologic cancers allows for minimally invasive surgical removal of cancer-bearing organs and tissues using sophisticated surgeon-manipulated, robotic surgical instrumentation. Now, robotic surgery represents an effective alternative to conventional laparoscopy. Since its widespread adoption, minimally invasive surgery has become an option not only for the morbidly obese but for women with gynecologic malignancy where conventional laparotomy has been associated with significant morbidity. When compared to the traditional radical hysterectomy performed via laparoscopy, the robotic approach allows for less blood loss and a shorter hospital stay at the cost of slightly increased procedure times.

Conclusion: Minimally invasive surgical techniques in gynecologic oncology have evolved greatly since the introduction of Da Vinci robot into the field. The advantages of robotic surgery over laparotomy, in the appropriately selected cancer patient, have proven benefits to the patient both intraoperatively and postoperatively, with similar outcomes. The fundamental aspects that are perhaps keeping this surgical approach from becoming more widespread are resources and surgeon skill and comfort level to complete extensive staging procedures. The advent of robotic-assisted surgery appears to offer the bridge between improved patient perioperative outcomes and surgeon ergonomics.

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## **Minimally invasive robotic surgery in colon and rectal cancer**

**F. Săvulescu, C. Cîrlan, C. Blăjuț, I. Budrugaec, R. Marin**

Laparoscopic rectal surgery continues to be a challenging operation associated to a steep learning curve. The conventional laparoscopic approach to colon and rectal surgery has several limitations, and therefore many colorectal surgeons have great expectations for the robotic surgical system as an alternative modality in overcoming challenges of laparoscopic surgery and thus enhancing oncologic and functional outcomes. This presentation explores the possibility of robotic surgery as an alternative approach in laparoscopic surgery for colon and rectal cancer. The da Vinci® Surgical System was developed specifically to compensate for the technical limitations of laparoscopic instruments in rectal surgery. The robotic colorectal surgery is associated with comparable or better oncologic and pathologic outcomes, low morbidity and mortality, higher probability of autonomic nerve preservation and genitourinary function recovery. Furthermore, in very complex procedures such as intersphincteric dissections and transabdominal transections of the levator muscle, the robotic approach is associated with increased performance and safety compared to laparoscopic surgery.

**Conclusion:** The robotic surgery for rectal cancer is an advanced technique that may resolve the issues associated with laparoscopic surgery.

## **Single-site minimally invasive robotic surgery in cholelithiasis**

**F. Săvulescu, C. Cîrlan, C. Blăjuț, I. Budrugaec, R. Marin**

Laparoscopic single-incision surgery is fraught with significant technical drawbacks but has witnessed increased growth mainly for its presumed aesthetic advantages. Recently, a single-site robotic platform has been introduced to alleviate some of the technical challenges with laparoscopic single-site surgery. While

the cosmetic result of single-site laparoscopic surgery is self-evident, the technique suffers from loss of ergonomics. This is due to the lesser degree of freedom offered by laparoscopic instruments, compounded by working in a parallel setup with lack of first assistance and an unstable visual field. The robotic platform can help to address the limitations of the laparoscopic technique by providing a stable visual field, with movement of the arms switched by computerized inversion and instruments that offer a higher degree of freedom. The da Vinci Si system software automatically detects and reassociates the surgeon's hands with the instruments, giving the console surgeon the perception that the left hand is controlling instruments on the left side of the visual field while the right hand is controlling instruments on the right side of the field.<sup>12</sup> Of all the available features, this is an undeniable advantage of the system that makes the approach simple, intuitive, and plausible even for a trainee.

**Conclusion:** The single-site robotic cholecystectomy is feasible and safe to perform in patients with acute or chronic cholecystitis, with good short-term perioperative outcomes. This technique can be used to train residents and surgical fellows, although long-term rates of incisional hernia and cost associated with the procedures still need to be analyzed. Continued use of this platform will also determine if it is possible to perform more complex cases with a single incision.

## **Initial experience with robotic-assisted laparoscopic radical prostatectomy in Central Military Hospital**

**M. Dinu, F. Săvulescu, A. Aungurenci, V. Botea, V. Mădan**

**Introduction:** Robotic-assisted laparoscopic radical prostatectomy has gained popularity in the last two decades due to its superior 3-dimensional magnified vision and improved manual dexterity for surgeons. In this way robotic surgery facilitates the transition from standard open surgery to minimal-invasive surgery. We report our initial experience with the use of the da Vinci robot for the minimal invasive treatment of



prostate cancer.

**Materials and methods:** Between February and June 2017 we have performed 10 robotic-assisted laparoscopic radical prostatectomies. All 10 patients were previously diagnosed with prostate cancer by biologic, imagistic and pathologic means. We have prospectively studied the perioperative parameters and early surgical outcome of our patients.

**Results:** The mean age at diagnosis was  $65.5 \pm 5.7$  years. Based on the pathology examination of the biopsies, the Gleason score was 6 (n=5) or 7 (n=5) thus including the patients into low respectively intermediate risk prostate cancer according to d'Amico criteria. Mean preoperative prostate-specific antigen (PSA) level was  $9.1 \pm 2.33$  ng/mL. The mean operative time was  $238 \pm 48.3$  minutes. Perioperative

blood loss was about  $200 \pm 73.7$  mL but no patient required blood transfusion. We did not encountered intraoperative complications that required conversion to open surgery. Only one patient had a postoperative complication that required open surgery in the 3rd postoperative day. The mean hospital stay was  $4 \pm 1$  days except for the patient that developed postoperative complication. The mean duration of bladder catheterization was  $11.4 \pm 2.7$  days. All patients received low molecular weight heparin for 21 days postoperative.

**Conclusion:** Robotic prostatectomy is a safe and well standardized procedure that confers the benefits of enhanced precision and dexterity for complex laparoscopic work in pelvis.

## Obesity, interdisciplinary approach

### Obesity – a leading cause in non-alcoholic fatty liver disease

**Florentina Ionita Radu, Andrada L. Popescu, I.P. Nuta, Raluca S. Costache, Mariana Jinga, Sandica Bucurica, B. Macadon, M. Patrascu, Maria M. Chereja, Gaudia V. Manescu Avram, A.I. Gavrila**

**Introduction:** Worldwide obesity has more than doubled since 1980, with approximately 13% (600 million) of adults having BMI  $>30$  kg/m<sup>2</sup> as of 2014, making it one of the leading current health problems. One of obesity's many complications, NAFLD (non-alcoholic fatty liver disease), can progress to more aggressive and potential fatal forms of liver injuries, so more attention should be given to this pathology by healthcare workers.

**Materials and methods:** Due to an imbalance between complex metabolic interactions in obese patients, excessive amounts of triglycerides get deposited in the hepatic tissue and steatosis (the hallmark feature of NAFLD) is born. In time these changes can lead to

inflammation and hepatic cell damage, condition known as NASH (non-alcoholic steatohepatitis), which is a precursor state for liver cirrhosis, the ruling cause of hepatocellular carcinoma.

Although liver biopsy and histology is considered to be "golden-standard" in diagnosing steatosis, in recent years more accessible and easy to use methods for quantifying fatty liver deposits have become available, with transient elastography plus controlled attenuation parameter, FibroMax (SteatoTest, NashTest) and newer IMR techniques being in a constant battle to become the new standard.

It is very important to detect NAFLD and NASH in obese patients so that proper diet and treatment can be established, and so breaking the chain of events leading to severe liver afflictions.

**Results and conclusion:** Non-alcoholic fatty liver disease is emerging as a very important health problem in part due to an alarming rise in obesity incidence, meaning that a proper diet and weight loss can be the best solution.

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## Aorta from valve to bifurcation

### Endovascular treatment of abdominal aortic aneurysms

**I. Droc, M. Dumitrascu**

**Purpose:** to assess the short and medium term safety and efficacy of endovascular abdominal aortic aneurysms repair (EVAR) in high-risk patients.

By helping patients avoid abdominal surgery, EVAR minimizes the perioperative impairment of cardiac, pulmonary, renal and gastrointestinal function. The greatest potential benefit is in high-risk patients who have large aneurysms and who are poorly suited to any of the current surgical alternatives.

**Material and method:** We report the results of 55 elective EVAR (endovascular abdominal aortic repair) procedures performed in two vascular surgical centers

in Romania and Germany. The mean follow up was 18 months with CT-scan, duplex ultrasound and contrast-enhanced ultrasound

**Results:** The prosthesis used were 16 E-vita Abdominal XT, 12 Excluder, 8 Talent, 7 PowerLink, 3 Endurant and 9 custom made fenestrated or branched from Jotec. Primary-assisted technical success rate was 100%. There was 1 non AAA-related late death. Conversion to open repair was performed in 1 case, as a late conversion for a type III endoleak (at 15 months after EVAR) with aneurysm sac enlargement >8mm.

**Conclusion:** These results show that in the modern era of abdominal aortic aneurysm treatment EVAR is safe and effective in high-risk patients, at least during the short to intermediate term.

## Hospital management of multiple casualties' incidents

### Multiple trauma management in the Emergency Department

**C.B. Teusdea, S. Dogaru, Ana I. Gheorghescu**

The World Health Organization (WHO) has identified trauma as the major health care challenge of our century. Because trauma affects predominantly young population, it is responsible for more productive life years than any other disease. Treating trauma requires a combination of strategies consisting in prevention, intensive care and recovery. The patient's survival is dependent on the teamwork between different medical or surgical specialties all along their pathway care: the pre-hospital team, the in-hospital teams (emergency medicine, anesthesia, surgery, critical care) and finally the rehabilitation teams. For an efficient management there are four key areas which are closely linked and integrated by communication: teamwork, task management, situational awareness,

decision making. In this paper we propose a review concerning the main stages of multiple trauma management, which represents the basis for investigation and diagnosis integrated of trauma patients.

### Hospital management of mass casualty incident

**C.B. Teusdea, F. Costea, M. Toma, S. Dogaru**

Mass casualty incident with a large influx of victims are inevitable. A correct and careful risk assessment and an efficient planning of activities and resources will allow the impact of these situations to be reduced to the basic activity of the hospital and the quality of healthcare. Much of these situations can be managed using resources that work redundantly to mitigate the

expected effects of the emergency.

Beyond the proper management of risks, the introduction of an alert and evaluation system is extremely important. These systems, together with precautionary measures related to unidentifiable risks, will help prevent traps that can occur after a crisis has occurred.

Communication systems in the event of disasters or in major emergencies may be affected. Under these circumstances, the White Plan sets out the main means of communication that must / can be used.

WHITE PLAN represents the response plan of bedside units in the event of a massive influx of patients following a collective accident, a calamity, epidemic or pandemic. The WHITE PLAN allows the management of emergencies outside the hospital, requiring additional human, logistical, financial, and appropriate training.

The course addresses to medical specialists and nurses and intend to make introduction to the White Plan's overall framework, explain what does the WHITE PLAN mean, present the crisis cell at the ED and at the hospital level, and organization of receiving multiple emergencies, explain the Triage of Patients and Triage Card, and finally present some concept regarding to decontamination in case of nuclear, chemical and biological accidents.

## Management of traumatic brain injury algorithm in the Emergency Department

**C.B. Teusdea, M. Toma, M. Salceanu**

An enormous public health problem is representing by traumatic brain injury (TBI) even with modern medicine in the 21st century, that's why a management algorithm is very important. Most patients with TBI (75-80%) have mild head injuries; the remaining injuries are divided equally between moderate and severe categories. Almost 100% of persons with severe head injury and as many as two thirds of those with moderate head injury will be permanently disabled in some fashion and will not return to their premorbid level of function. TBI may be divided into 2 broad categories, closed head injury and penetrating head injury, and treatment presents some important differences. Also, closed head injury treatment is divided further into the treatment of mild, moderate, and severe head injuries.

In this paper we propose a traumatic brain injury management algorithm to ease the diagnosis and treatment of this type of trauma.

## Politrauma patient

### Polytrauma management – the general surgeon's approach

**C. Musat, R. Nica, O. Albita, C. Dutu, T. Rogin, D. Orosan, C. Cirlan, Elena Starcu, A. Lica, A. Luchian, C. Blejut, Madalina Piron, Lavinia Raboj, R. Dragos, F. Savulescu**

Polytrauma cases require almost always a multidisciplinary approach, after the patient's admittance to the E.R. The team is usually conducted by the Trauma Surgeon, or the General Surgeon.

Various aspects of the specific pathology and treatment are discussed: BLS, ATLS and beyond, means of stabilisation, as well as primary, secondary and further surgical treatment, especially for abdominal trauma.

The surgical procedures, meant, in the early stages, to provide life support and stabilisation, are detailed.

The conclusions are devised towards the need for an accurate and highly aggressive surgical approach, as the mean to improve the outcome of polytrauma treatment, including the need for specific training in

## Melanoma

### **A clinical and dermatoscopic algorithm for the estimation of the Breslow index in primary cutaneous melanoma**

**A.M. Țilea, V. Trifu, Monica S. Dărmănescu, Mihaela Georgescu, Marcela Poenaru, Raluca I. Săftoiu, G.S. Țiplica**

**Introduction:** The clinical and dermatoscopic estimation of the Breslow index (Bi) can be of paramount importance in the management of Primary Cutaneous Melanoma (PCM). Such estimation, if performed accurately, would greatly improve the management of PCM.

**Material/methods:** We have created an algorithm based on the clinical and dermatoscopic evaluation of the PCM. This algorithm consists of a first phase in which a highly accurate diagnosis of PCM is obtained. A second phase of the algorithm will estimate the Bi of being less than 2mm versus  $\geq 2$ mm. This estimation led to the management of the PCM as follows: 1. tumours with estimated Bi of  $\geq 2$ mm were excised with 2cm margins; 2. tumours with the estimated Bi of  $< 2$ mm were excised with 0,5cm margins; 3. when the final histopathological results arrived the tumours with Bi values between “in situ” and  $< 2$ mm were reexcised for curative margins according to the guidelines.

**Results:** Using this algorithm 69.7% of the cases were treated with curative margins from the first excisional biopsy. The rest of the 30.3% of the cases required reexcision according to the histopathological Bi per the guidelines.

**Conclusions:** These results highlight the importance of a preoperative algorithm in the management of PCM. In our study more than 2/3 of the patients were treated with curative margins from the first excisional biopsy. Only 1/3 of the patients required a second

surgical intervention for curative margins.

### **Sentinel lymph node biopsy – an important prognostic indicator in patients with melanoma**

**B.M. Marinescu, C. Mazilu, D. Muraru, I. Guzganu**

Sentinel lymph node represent the first regional lymph node that drains the lymph from the primary tumor. It is potentially the first node to receive the seeding of lymph-borne metastatic cells. Practical approach of SLNB include: lymphoscintigraphy, blue dye, gamma probe, +/- preoperative ultrasound and palpation.

SLNB represents a minimally invasive procedure, used to accurately stage nodal basins at risk for harboring occult metastases. It became a standard procedure performed to identify lymphatic metastases for melanomas greater than 1 mm in thickness, in an effort to better classify patients for prognosis and treatment regimens.

SLNB allows for a less extensive surgery to be performed, which has fewer side effects and a lower morbidity rate compared to more radical surgery (total lymphadenectomy).

By performing SLNB: it improved accuracy of staging; it can be obtained one of the most important predictor of survival rate; it can provide limited specimen that can be examined in greater detail.

Patients with nodal metastases can be identified to undergo early therapeutic lymph node dissection and adjuvant therapy (patients with positive SLNBs are considered for adjuvant therapy with IFN or vaccines).

## Radiotherapy in the management of melanoma

**S. Vlad, G. Ricu, M. Matei, G. Balasa, M. Dumitrache, Alina Tanase, Irina Carnutu, A. Anghel**

Historically, malignant melanoma was considered a relatively radioresistant tumour, but at present radiotherapy is recognized effective as palliative or locoregional therapy, part of the multidisciplinary management of the disease. Because of the developments in systemic and targeted therapy (preferred option in most clinical situation, in association with surgery) the use of radiation therapy is reserved for palliation or consolidation of other treatments.

We present the indication of radiotherapy as:

1. Palliative radiotherapy for metastatic disease (brain metastasis, bone metastasis associated with spinal cord compression, bone pain);
2. Regional treatment for nodal invasion (cervical, axillary, inguinal nodes);
3. Main treatment modality, replacing surgery or for local recurrences.

Radiosurgery (SRS) and Stereotactic Body Radiotherapy (SBRT) can be used in ablating oligometastatic disease in particular cases.

Response of melanoma to irradiation depends on initial tumor volume, total radiotherapy dose and fraction size (radiobiological considerations).



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Romanian Journal of Military Medicine  
New Series, Vol. CXX, Suppl. 1/2017, October  
ISSN-L 1222-5126; eISSN 2501-2312; pISSN 1222-5126