# OP session MD1

## Tuberculosis – a diagnostic challenge in Romania. Considerations on a clinical case

**G. Stoicescu, L.M. Ciobîcă, Daniela Anghel, S. Stanciu, Iolanda Sârbu, Ancuța Coca**

A 42 years old patient present cough, respectively a productive mucopurulent sputum, in a small quantity and asthenia. From her medical history we retain a diagnostic of uterine tumor, about seven years – therapeutic neglected and a recent asthma – 2 months ago, in a normal clinical exam context and a normal radiologic examination.

Clinic, without elements of bronchospasm, without bronchospasm seizures in the last 2 months and an abdominal pelvic tumor at the 1st palpation.

We performed a chest radiograph which highlighted several mild nodular opacities and a hydroaeric image of 4/2 cm in the right base. Respiratory functional tests were normal and the bronchoscopy with lavage, highlighted an intense mucosal congestion in basal segments. The cultures from the sputum and tracheobronchial aspirate, haven't evidentiate the BAAR presence. The hemoleucogram indicates a medium ferriprive anemia and martial treatment was followed. Detailed exam of the pulmonary CT bring in discussion, suspicion of a nodular and ulcerative pulmonary TBC – multiple and bilateral.

In this context, after pulmonology exam the patient is guided in a specialized department. The BK culture result at 2 months has come positive.

As a particularity of the case, the TBC pulmonary with a fast evolution toward a pulmonary abscess, in less than 2 months, after a pulmonary exam with normal pulmonary radiography. The patients were not in a clinic or biological context of immunosuppression.



## Improving treatment adherence in schizophrenia diagnosed patients by using long acting injectable antipsychotics

**O. Vasiliu, D. Vasile, A.G. Mangalagiu, B.M. Petrescu, C. Tudor, C. Cândea, R.E. Bazac-Bratu, F.T. Androne, A.F. Alboaie, M. Pătrașcu, E.A. Morariu**

Treatment adherence in psychotic disorders is an important factor that correlates with disorder's prognosis, risk of complications, duration and frequency of hospitalizations, social and professional reinsertion.

Long acting injectable treatments are available and their administration could improve patients' adherence to antipsychotics. From the clinician's perspective, long acting injectable antipsychotics are preferred to oral medication due to a more accurate way of treatment monitoring and to the maintaining of stable active drug serum concentrations throughout the treatment duration, therefore avoiding high drug levels associated with adverse events, but also lower drug levels which could be responsible for relapses.

From the patients' perspective, fewer presentations to the physician could be perceived as a benefit. From the caregivers' point of view, a lower rate of relapse and fewer visits with the patient to the physician could reduce the disease burden.

Several options are currently available in clinical practice – risperidone microspheres could be administered every 2 weeks, aripiprazole monohydrate is recommended for administration every 4 weeks, olanzapine pamoate every 2 or 4 weeks, and paliperidone palmitate every 4 weeks. Other formulations are FDA approved but not yet marketed in Europe, like aripiprazole lauroxil (administered every 4 or 6 weeks) and paliperidone palmitate with a longer, 12 weeks, effect.

A trend to develop drug formulas with longer intervals between injections is observed and this is good news regarding the problem of treatment adherence in schizophrenia.

## Osler-Weber-Rendu Disease – familial case report

**Cristina Vîrlan, Florina Topliceanu, Lavinia Bârsan, M. Șotcan, E. Dănăilă**

Introduction: Osler-Weber-Rendu disease (OWRD, also known as hereditary hemorrhagic telangiectasia) is a rare autosomal dominant disease, which manifests through mucous-cutaneous telangiectasia and arteriovenous malformations, a potential source of serious morbidity and mortality. Recurrent and severe epistaxis is the most common presentation, frequently leading to severe anemia that necessitates transfusion.

Material and methods: A 40 year-old woman presented to our clinic with recurrent epistaxis. Clinical examination revealed mucous-cutaneous telangiectasia. Imaging studies showed ectasias of portal and splenic veins. She confirmed that her mother had also had recurrent mucosal and oral bleeding, but she has not investigated them. The diagnosis of OWRD was established as all the criteria were met.

Results: As the OWRD is a hereditary disease, we investigated the first-line blood relatives of the patient. One of her two sons presented the same symptoms and was also diagnosed with OWRD. Currently, the patient and her son are periodically evaluated and treated for anemia. There was no need for surgical intervention, as the arteriovenous malformations were minimal and not life-threatening.

Discussion: Symptom onset may be delayed until the fourth decade of life (~90% of patients manifest by age 40 years) or later. Screening family members for signs of OWRD is reasonable and should include a complete history, physical examination, chest radiography, and arterial blood gas testing (with measurement of the shunt fraction).

## Macroamylasemia – a source of confusion in clinical practice

**V. Smedescu, Alexandra Gireadă, Corina Taubner, I. Copaci**

Introduction: Macroamylasemia represents the presence of circulating complexes, consisting of amylase bound to immunoglobulins (IgA or IgG), not filtered by the kidney, generating increased amylase serum levels.

Materials and methods: We mention the case of a 44 year old woman who presented with a dyspeptic syndrome and whose laboratory tests indicated an increased amylase serum level with a normal lipase serum level. In the absence of another cause of hyperamylasemia (an intraabdominal or salivary condition or renal failure), macroamylasemia was suspected.

Results: The diagnosis was confirmed by the amylase creatinine clearance ratio (ACCR), less than 1%.

Discussions: Macroamylasemia is encountered in about 2.5% of hyperamylasemic patients and in 1% of healthy individuals. There are three types of macroamylasemia. In the first, most common type, the amylase activity is increased in serum and decreased in urine. In the second type, the ratio macroamylase/normal amylase in serum is lower than in the first type and the urinary amylase is increased. The third type is characterized by normal serum and urine amylase activity.

As a conclusion, in some cases, like ours, the diagnosis can be confirmed by the ACCR, but sometimes the detection of macroamylase in serum may be necessary.

## Holistic approach of the bacterial resistance to antibiotics phenomenon

**V. Ordeanu**

The main objective of this work is how to investigate the microbial resistance and, in particular, the bacterial resistance to antibiotics (AB) as it is a worrying phenomenon for the public health, globally, in all WHO regions. The spread of this phenomenon leads to the risk of not being able to control infectious diseases, described as "the end of the antibiotics era" that would lead to "the end of modern medicine."

In order to prevent this public health's major risk, we study the phenomenon scientifically and exhaustively, interdisciplinary and multidisciplinary, bio-medically and socio-economically, in order to identify critical points and propose concrete measures of action.

The "One health" innovative Concept of the WHO allows, for the first time, to bring together the bacterial and antibiotic resistance in human medicine, military medicine, veterinary medicine, zootechnics, pharmacy, environment etc., being appropriate for studying and fighting against this dangerous to public health phenomenon.

The innovative holistic approach to medical and paramedical aspects of the microbial resistance, a subject in which our team already has a long experience, will constitute a useful database for scientists, practitioners and healthcare policymakers. This project was proposed and accepted of Grand Challenge at Bill and Melinda Gates Foundation, USA, 2016.

## Primary prevention in unipolar depression

**A. Nistor, T. Hara, C. King, F. Blebea, A. Iftodi, Corina Tudor, O. Vasiliu, D. Vasile**

The concept of primary prevention in psychiatry remains controversial, met with skepticism even today. Goldstein (1977) sees it as an idea that is ripe to become practice, and a possible achievement of modern psychiatry, Cummings (1972) sees more costs versus benefits in its implementation, Henderson (1975) judges it to be an illusion, Erlenmeyer-Kimling (1977) as something that belongs in the distant future, while those responsible for allocating funds for its realization, consider it a luxury. These are points of view still present when we try to explain the passive attitude of our communities regarding this field.

Nevertheless, medical progress in the field of psychiatry brings hope that primary prevention in mental health can prove to be effective, with unipolar major depression being the most researched topic, as depression is among the leading contributors to the global burden of illness-related disability, and is predicted to be the greatest contributor to the illness burden by 2030.

There is a paucity of primary preventive programs aimed at the general population. Therefore, it is a matter of public health to find ways to implement timely and effective strategies to prevent major depression. As primary prevention addresses the healthy individual, a collaborative multi-disciplinary approach focused on universal primary prevention (Shinn and Toohey-2001) that would target the communities in their entirety would be most successful.

## Rare cause of a severe coagulopathy

**Anca Manolache, V. Duțescu, Elena Busuioc, I. Copaci, V. Smedescu, V. Balaban**

We report a case of a 40 year old man who presented himself in emergency department for multiple spontaneous ecchymoses and hematomas over the last 12 hours. He had been prescribed NSAID for renal colic 3 days before presentation. In the beginning, biological tests showed inflammatory syndrome without anemia.

Clinical exam revealed pale teguments and mucosa, ecchymosis and diffuse tenseness to the right forearm, left and right leg.

Laboratory results showed a prothrombin time of 21 msec and an activated partial thromboplastin time of 98 seconds. Platelets were normal and hemoglobin level was 7.2g/dl. The patient presented also hypoproteinemia, hypocalcemia and hypokalemia associated with severe inflammatory syndrome (fibrinogen 875 mg/dl, ESR 90 mm/1h).

Because the patient became unstable due to fast progression of anemia (Hb5g/dl) over 4 hours associated with the extension of hematomas and with a slow response of the treatment, we decided the admission in the intensive care unit.

We continued to investigate the coagulopathy and we excluded the acute promyelocytic leukemia. We excluded a possible organophosphate poisoning after the cholinesterase level came out normal. We took blood test for hemophilia as per indication of the hematologist.

The CT scan showed intestinal walls thickened due to possible hematomas at this level.

After we started treatment with FFP, vitamin K, the coagulation parameters became normal. Because hydroelectrolytic disturbance persisted and patient continued to present modification of intestinal transit (one/two soft stools per day), it rose the suspicion for celiac disease. We performed an esophagogastroduodenoscopy that revealed a typical pattern for celiac disease. Also the serology was positive with an increased level of antitransglutaminase IgA antibody (320 U/ml).

After we started the free gluten diet, the clinical and biological evolution of the patient was favorable.

Symptomatic coagulopathy represents a very rare manifestation of celiac disease, in this particular case revealed by the consumption of NSAIDs medication.

## Noninvasive ventilation in obesity hypoventilation syndrome

**I. Jascu, Ioana Ștefănescu, C. Ioniță, E. Firoiu, Claudia Popovici, Gabriela Andraș**

Introduction: Obesity hypoventilation syndrome (OHS) is a condition in some obese people in which poor breathing leads to lower oxygen and higher carbon dioxide levels in the blood. This syndrome arises from a complex interaction between sleep-disordered breathing, diminished respiratory drive, and obesity-related respiratory impairment, and is associated with significant mortality and morbidity.

Material and methods: In the last year we investigated several obese patients for OHS presenting with acute to chronic respiratory failure. In most of the cases the diagnosis was confirmed and many patients were diagnosed or already had obstructive sleep apnea or COPD too. We initiated noninvasive ventilation (NIV) in daytime in three periods of

two hours and six hours in the night. Few of them, who came with severe condition, were admitted in the Intensive Care Unit and needed tracheal intubation and mechanical ventilation. After improving, they were transferred in our department and continued NIV.

Results: The patients had a good and rapid recovery with carbon dioxide level lowered almost to the normal values and concomitantly with oxygen partial pressure growth. Severe patients could be mobilized after a few days and in 7-10 days were discharged. Most of them now use NIV only in the night and have a better quality of life.

Conclusions: Patients with OHS can be treated with NIV during an episode of acute hypercapnic respiratory failure. NIV introduction in our department practice determined a faster recovery of severe patients with shortening hospital admittance and costs lowering.

## Malabsorption and hematuria – what is the connection

**Anca Manolache, V. Duțescu, Elena Busuioc, I. Copaci, V. Smedescu, L. Eftimie, G. Becheanu**

We present the case of a 60 years old woman which was sent from the Psychiatric Department to our establishment to investigate a malabsorption syndrome. For 4 months the patient presented symptoms of asthenia, fatigue and modified stools associated with weight loss of approximately 10 kg.

The clinical exam showed low weight (BMI 17 kg/m$^2$), pale teguments and mucosa, cutaneous hyperpigmentation, leg edema and absent bilateral vesicular murmur on the base of the lungs.

Since the beginning, the exams were showing severe feriprive anemia, hypocalcemia, hypoproteinemia with moderate inflammatory syndrome and also with negative serology for celiac disease. Urinary samples detected microscopic hematuria with 20% dysmorphic red blood cells, leucocyturia in the presence of positive urine cultures for Escherichia coli, without nephrotic or nefritic proteinuria.

We repeated the upper and lower endoscopy. After the esogastroduodenoscopy we've suspected the presence of intestinal lymphoma, subsequently denied by the histopathological exam. Ultrasonographic exam shows the presence of polyserositis.

The CT scan discovered in addition abdominal lymphadenopathies and bilateral renal cortical densification. After all the common causes were excluded, the persistence of hematuria and malabsorption lead us to investigate another rare cause like Whipple disease.

We repeated the upper gastro endoscopy with multiple biopsies samples for PAS coloration. The results were positive and confirmed by PCR exam for Tropheryma whippelli.

After we initiated the specific antibiotic treatment, the patient evolution was favorable with the remission of the malabsorption syndrome, hematuria and negativity of the PCR for T. whippelli.

The renal disorder due to Whipple disease it's very rare, a few cases were described in the literature of interstitial chronic nephritis and kidney failure due to renal amyloidosis.

## A case of H1N1 flu complicated with bronchopneumonia, acute respiratory failure and BOOP

**C. Ioniță, Ioana Ștefănescu, I. Jascu, E. Firoiu, Claudia Popovici**

H1N1 is a flu virus. When it was first detected in 2009, it was called swine flu because the virus was similar to those found in pigs. The H1N1 virus is currently a seasonal flu virus found in humans, who spreads between people in the same way that seasonal flu viruses spread.

We present the case of a 49 years patient, non-smoker, with no medical history, presented in ER with: high fever, inspiratory dyspnea, productive cough (purulent sputum) and intense fatigue. Physical findings: bilateral intense crepitation, $SaO_2$ between 70% and 73% without oxygen, polypnea (34/minute). The chest X-ray revealed a mixt (alveolar and interstitial) pattern spread in both lungs, while the laboratory revealed leukopenia (3.700/mm$^3$) and increased values of Urea (67 mg/dl), Creatinine (1.75 mg/dl) and AST (92 UI/l), the patient being positive for H1N1 flu.

The patient was admitted in ICU, where he was intubated and mechanical ventilated (for three weeks), treated with large spectrum antibiotics and Tamiflu, with the persistence of respiratory failure ($SaO_2$ 88% - 89% without $O_2$) and a mild improvement of the chest X-ray aspect. Due to the last aspect, a BAL (bronchoalveolar lavage) was performed, it's results being characteristic for BOOP (bronchiolitis obliterans organizing pneumonia), which determined the introduction of corticotherapy (Prednisone – 70 mg daily as initial dose, for about three weeks, followed by reduction with 5 mg every three weeks).

After four months of corticotherapy, despite the clinical and chest X-ray initial improvement, the prognosis remain reserved (the patient still presents shortness of breath, still

uses $O_2$ from time to time, stationary aspect of the chest X-ray in the last 3 months).

# OP session MD2

## The value of Wells score in pulmonary embolism management in the ED

**C. Florea, C.B. Teușdea, G. Ifrim, Alexandra David, Anca Arsene**

The diagnosis of pulmonary embolism (PE) in the emergency department is challenging due to the wide range of non-specific symptoms, imperfect investigations and lack of clinical diagnostic criteria.

There are various scoring systems in an attempt to limit unnecessary investigations in those with low risk of PE. The Wells score for pulmonary embolism provides an estimated pre-test probability of pulmonary embolism and allows the clinician to exclude with some measure of accuracy those patients who are at very low risk of PE and for whom further testing and observation is not necessary.

The presenting symptoms are common and non-specific varying from shortness of breath chest pain, cough and hemoptysis, to syncope and cardiac arrest. There is a high false positive rate with non-invasive testing (D-dimmers) but relatively significant potential adverse events (radiation and contrast associated complications) with more invasive testing such as Computed Tomography Pulmonary Angiogram (CTPa).

While the original intent of this tool was to determine which patient was low risk enough to rule out testing with D-dimmers it is considered safer to use the three tier model which uses the score and d-dimmers testing as well as performing CTPa on all high risk patients regardless of D-dimmers results.

We analyzed the way our ER department currently manages pulmonary embolism cases and if our protocols could be further improved by introducing the Wells score. We aimed to increase documentation of pre-test probability and reduce inappropriate investigations.



## Cardiac markers - ''odd'' laboratory results

**Alexandra Gireadă, V. Smedescu, Corina Taubner, I. Copaci**

Introduction: CK-MB is an essential cardiac marker used in the diagnosis of several acute cardiac syndromes, however there are several scenarios in clinical practice when it can create confusion.

Materials and methods: The presentation illustrates the case of a 78 year old man who was admitted for atypical chest pain and had a CK-MB level of 999 U/l and a total CK level of 764 U/l with normal troponin levels. An acute cardiac illness or rhabdomyolysis were excluded. The final diagnosis was urinary bladder neoplasm.

Results: The laboratory picture suggested the presence of macro CK in the serum of this patient.

Discussions: Usually, in cardiac patients, both CK and CK-MB levels are increased and the CK-MB/CK ratio is also modified (from its normal values of between 3% and 5% to 15-30% in certain clinical scenarios). When this ratio increases to values higher than 30%, other conditions must be considered. A laboratory result of > 100% is highly characteristic for the presence of macro-creatine kinase complexes (macro-CK), which are aggregates formed between CK isoenzymes, often involving immunoglobulins. They are usually generating false increases in the CK and CK-MB concentrations.

In conclusion, sometimes unusual laboratory findings can announce the presence of important pathological processes.

## Difficulties of clinical classification in a case of aortitis and large vessels vasculitis

**A. Ionescu, Roxana Diaconu, Denise-Ani Mardale, V. Smedescu, Oana Stancu, Magda Iriciuc, I. Copaci, C. Jurcuț**

We present the case of a 22-year-old woman, diagnosed with Takayasu arteritis four years earlier, who recently started to complain of fatigue, claudication of the left arm and weight loss of about 7 kg in the last months. Her physical examination revealed signs of anemia, multiple bruits,

asymmetrical arterial blood pressure with a colder left arm with no signs of acute ischemia, while her laboratory investigations showed moderate anemia with signs of systemic inflammation.

We performed a computed tomography angiography which described thickening of the wall of the entire aorta, with smoothly tapered luminal narrowing to a minimum of 9 mm, also involving most major branches of the aorta. At this point, the patient meets the classification criteria for Takayasu arteritis, established by the ACR in 1990. However, the laboratory work-up showed the positivity for specific systemic lupus erythematosus (SLE) antibodies. Thus, the possibility of aortitis in the context of SLE was suggested.

However, in the absence of direct histological examination, this differential diagnosis was not possible. No other causes for the patient's anemia, other than the chronic inflammatory state, were uncovered and a net improvement of her condition was observed after systemic glucocorticoids therapy (pulse therapy of methylprednisolone followed by oral prednisone) and IV iron supplement, the patient being stable thus far.

This case report emphasizes the difficulties of correct classification in patients with large vessels vasculitis in daily clinical practice.

## Severe mitral regurgitation in young woman – when to search for a systemic cause

**Denise Mardale, Roxana Diaconu, A. Ionescu, V. Smedescu, Oana Stancu, M. Șotcan, D. Cârpaciu, I. Copaci, C. Jurcuț**

We report the case of a 29-year-old woman followed in the department of cardiology for severe mitral regurgitation. During the follow-up she developed deep vein thrombosis at the level of left upper limb (subclavian and jugular vein) associated with mild pulmonary hypertension, polyserositis, lymphadenopathies and anemia. The computed tomography confirmed the presence of deep vein thrombosis, bilateral pleural and pericardial effusion, the polyadenopathies and the hepatosplenomegaly. We performed the biopsy of an axillary adenopathy which was negative for any specific infectious, neoplastic and hematological diseases.

An extensive laboratory work-up was performed revealing the high level of anti-dsDNA antibodies associated with positivity for antiphospholipid antibodies and microcytic anemia. The other causes for anemia were carefully excluded. No other clinical signs (i.e. arthritis or skin lesions) of systemic lupus erythematosus (SLE) were observed. A diagnosis of SLE was made and a treatment with hydroxychloroquine, systemic glucocorticoids (prednisone) and oral anticoagulants was started with the remission of serositis, lymphadenopathies and anemia. Taking into account the severity of mitral regurgitation, the surgical valve replacement was planned.

This case emphasized the need for screening for systemic diseases (i.e. SLE) in young patients with cardiac valvular lesions without a clear etiology. Moreover, the antiphospholipid antibodies were reported to be associated with cardiac valvular lesions in patients with SLE and should be evaluated in these patients.

## Pre-analytical variables in coagulation testing

**Corina Taubner, Rodica Zemba, Irina Butte, Clara Neguţ**

Introduction: The most commonly performed tests in the coagulation laboratory are the Prothrombin Time and the Activated Partial Thromboplastin Time. Coagulation tests results are important in the diagnosis and treatment of patients with bleeding or clotting disorders and also in monitoring the efficiency of anticoagulant therapy.

Materials and methods: The elements of the laboratory quality system, internal quality control and external quality assurance provide information on the analytical phase of the testing process by assessing the precision, sensitivity, accuracy of the testing method and by evaluating the long-term laboratory performance. Although significantly improved analyzers were developed and highly sensitive reagents are routinely used, samples for coagulation testing are particularly susceptible to pre-analytical errors.

Results: The pre-analytical variables such as specimen collection and handling account for up to 75% of errors within the diagnostic process and cannot be detected by current control quality control procedures. The activity of the coagulation laboratory was assessed regarding the quality and integrity of the coagulation samples affected by inappropriate specimen collection or handling. The identified errors include samples that are hemolysed, heparin contaminated, clotted or insufficient collected.

Discussion: Understanding the sources of the pre-analytical errors is a prerequisite for implementing measures in order to control the assay performance and lead to reliable test results that actually represent the clinical status of the patient and not just the status of a clinical sample received and tested.

# OP session MD3

## AVC recovery to youth

**A. Iliuță, D. Nedelescu, Paulina Vintilă, Simona Ionescu**

Stroke is an acute, serious neurological disorder resulting from blockage of blood supply to an area of brain or from cerebral hemorrhage.

Worldwide, stroke is the leading cause of morbidity and mortality because annual "kill" five million people and causes five million other severe disabilities.

Prospective studies show that this disease increases from year to year, both the incidence and prevalence, appreciating the World Health Organization experts, the stroke will become by 2030 the leading cause of mortality.

In Europe, the incidence of stroke varies from country to country, estimated between 100 and 200 strokes per 100,000 inhabitants annually in November.

Stroke is the main etiological factor of installing long-term disability in developed countries constituting the third leading cause of death after heart disease and neoplasms

Romania is in the top ten in the world in terms of the incidence of stroke by stroke. Mortality is three - four times higher in our country than in EU countries and six – seven times higher than the United States America. Maximum age on the incidence of strokes occur in 75% of cases after 65 years.

Patients who survive a stroke often show symptoms like persistent paralysis of motor function, sensory deficits, and deficits in perception, balance, aphasia, depression, dementia or other deterioration of cognitive function.

A neurologically ill health is a long process, continuously for life. Problems actual recovery will put just as long as there are signs of improvement and hopes for compensation or gain functional.

## Particularities of diagnosis and treatment of cervical spine pain in medical rehabilitation

**D. Nedelescu, A. Iliuță, Paulina Vintilă, Simona Ionescu**

Cervical spine pain is a symptom that most people experienced in their lifetime.

Knowledge of spinal biomechanics and pathophysiology helps determine the most likely pain generators in each case. A variety of spinal structures can produce overlapping or obscure symptomatology. An accurate diagnosis provides the best opportunity for effective treatment. The purpose of this presentation is to show the particularities of diagnosis and treatment of major degenerative diseases of the cervical spine: 1. Chronic pain of the cervical spine; 2. Acute torticollis; 3. Cervical-cephalic pain syndrome; 4. Brachial neuralgia cervical; 5. Cervical spinal stenosis; 6. Syndrome Barre-Lieou. It is important to view the patient as a whole, and institute physical, pharmacologic, behavioral, and interventional treatments in the broad context of achieving what is best for the patient's physiologic and psychologic well-being.

## Rehabilitation of patients with severe burns – our experience

**Anca Sălceanu, G. Teodoru, Cristina Gorgonețu**

The recent achievements in the multidisciplinary approach and starting intensive care treatment since the pre-hospital phase caused the increase in the number of survivors from fires involving large numbers of casualties how was the dramatic "Colectiv" nightclub fire almost a year ago. This approach brought great challenges in the rehabilitation of patients with severe functional deficits that in the past would not have survived until this phase.

In this paper we share our experience and results obtained in the treatment of patients with severe burns.

The medical rehabilitation principles is mandatory to be applied since the early postsurgical phase with functional positioning and avoiding complications of bed rest and should be continued for a long time until to complete the process of scar remodeling.

To obtain better outcome, patients should be regularly reassessed by all clinicians involved in their care and their treatment must be customized for each patient and each evolutionary stage.

## Truth and myth in rehabilitation of patients with multiple sclerosis

**Anca Sălceanu, G. Teodoru**

Multiple sclerosis (MS), an inflammatory autoimmune disease is the most common demyelinating disease of the

central nervous system. That is the second leading cause of disability of young adults after trauma.

The main problem of these patients is the inability to properly perform usual daily activities as a consequence of multiple neurological deficits.

For physical medicine and rehabilitation doctors the treatment of these complex patients represents a real challenge.

Management of them involves an interdisciplinary approach that requires close cooperation with neurologist, psychologist, physiotherapist, kineto-therapist, masseur, urologist and specialist in diet and nutrition.

For many years, patients with MS were advised to avoid exercise because of risk of increased neurological impairment, so for many years, and from our experience and in our days, many people with MS have limited their physical activity because of the fear of increased disability.

The goal of this paper is to shown, with several surveys, the benefits of physical training, with improvements in aerobic capacity, gait parameters and fatigue, and an influence on quality of life and less impact on fatigue.

### Verrucous carcinoma arising in an area of necrobiosis lipoidica

**Mihaela Georgescu, Viorica Marinescu, D.A. Chiriță, Florina Vasilescu**

Introduction: Necrobiosis lipoidica is a granulomatous condition presenting as indolent atrophic plaques, often on the lower extremities, mostly in diabetic patients. It may occasionally be complicated by squamous cell carcinoma. This association is rare.

Case report: We present the case of a 69 years old female patient that was admitted with a verrucous, ulcerated tumor, of 4/3 cm, developed on a scleroderma like plaque, localized on the right ankle. The local examination showed the presence of large atrophic plaques with the center of porcelain color and erythematous-violet margins, with the diameter of 20/15 cm, on the 1/3 inferior part of the leg. The lesions were several years old.

The general physical examination was normal.

The primary clinical differential diagnosis was verrucous carcinoma developed on a lichen sclerosus lesion or a necrobiosis lipoidica lesion.

A biopsy was performed and the result was verrucous carcinoma (in situ squamous cell carcinoma) arising in an area of necrobiosis lipoidica.

Considering the high risk of metastasis of a squamous cell carcinoma, the tumor was completely excised. The necrobiosis lipoidica lesions were treated with topical corticosteroids and pentoxifylline 2 tb daily, with a mild favorable evolution.

Discussion: Only fifteen cases have been reported to date in the literature, regarding the development of a tumoral transformation on a classical necrobiosis lipoidica plaque.

Conclusion: Considering the association of verrucous carcinoma with necrobiosis lipoidica, clinicians should have a high index of suspicion when consulting a patient with a tumoral lesion arising within a plaque of necrobiosis lipoidica.

## OP session MD4

### Interferon-free treatment for chronic hepatitis C – efficacy in a small cohort

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

Introduction: The objective is to present our department`s experience in treating chronic hepatitis C patients with the new “interferon-free” regiment which became available in our country in the fall of 2015.

Materials and methods: Chronic hepatitis C affects approximately 3% of the world’s population and represents a significant global health issue especially due to its complications: cirrhosis and hepatocellular carcinoma. The hepatitis C virus (HCV) treatment landscape has greatly changed over the past years, with the development of direct-acting antiviral (DAA) drugs that target various steps in the HCV lifecycle.

Older interferon-based regimens were complex and full of side-effects; they required 6–12 months of therapy, with cure rates averaging around 45-50% for HCV genotype 1. DAA-based regimens have short durations, minimal side

effects and efficacy approaching 90–100%.

In this small cohort study we aim to present our gastroenterology department`s experience in treating patients with advanced but compensated chronic hepatitis C – genotype 1b (Romanian population being very homogenous regarding hepatic C virus genotype infection), using an oral combination of ombitasvir, paritaprevir, ritonavir, dasabuvir and ribavirin; this being the only regiment that is available in our country at this time.

Results and conclusion: DAA-based regiment are a breakthrough in the long-term goal of eradicating hepatitis C, as more and more clinical studies confirm their very high efficacy, but the same clinical studies tell us that patients with sustained virologic response remain at risk for developing hepatocellular carcinoma, thus the need to further keep these patients under watch.

## Rocky liver mass in HCV infected patient – a case report

**Florentina Ioniță Radu, Andrada L. Popescu, I.P. Nuță, Mariana Jinga, Raluca S. Costache, Săndica Bucurică, B. Macadon, M. Pătrășescu, M. Șotcan, C. Bețianu, Maria M. Chereja, A.I. Gavrilă**

Introduction: Hepatocelullar carcinoma is the fifth most common type of cancer and third most common cause for related cancer death with an increasing incidence worldwide.

Highly calcified hepatocellular carcinoma is considered a relatively rare condition, going to misleading diagnosis, since this is a common finding in granulomatous diseases or hydatic cysts.

Materials and methods: We present a unique case of extensive calcified liver mass. A 69-year old man with diabetes and HCV infection presented with nocturne hydrosis in the past three weeks.

Computed tomography showed a 13/11 cm highly calcified mass in the right hepatic lobe on a background of cirrhotic parenchyma, accompanied with multiple retroperitoneal masses.

On the contrast enhancement the mass didn't have enhance in the arterial phase, nor portal venous and delayed phase washout, despite elevated alpha-fetoprotein level.

The liver mass had poorly defined margins, extensive psammomatous calcification, with dilatation of intrahepatic bile ducts and altered perfusion of the adjacent parenchyma.

Ultrasound guided liver biopsy of the mass was performed with difficulty due to massive calcification. Microscopically, the liver mass was composed of tumoral hepatoid large cells with granular eosinophilic cytoplasm disposed in trabeculae and cords.

The cells were diffuse immunoreactive to Glypican 3, to anti hepatocyte specific antigen antibody and focally positive for cytokeratin 7, but negative for cytokeratin 20 and antigen carbohydrate 19-9.

Results and conclusion: A calcified hepatocellular carcinoma is not such a rare condition, but it can be a challenge of diagnosis even in the presence of modern imagistic techniques.

## A challenge in finding cause of extensive portal vein thrombosis with hepato-splenic infarction

**R. Mateescu, Geanina Spulber, Florentina Ioniță Radu, M. Pătrășescu, B. Macadon, Andrada Popescu, Mariana Jinga, Raluca S. Costache, P. Nuță, Săndica Bucurică**

Introduction: Portal vein thrombosis represents a blockage or narrowing of the portal vein by a blood clot.

In adults, cirrhosis is the major etiology. Neoplasms are another major cause, with hepatocellular carcinoma and pancreatic carcinoma, extrinsic compression or direct invasion of the portal vein and lead to thrombosis by inducing a hypercoagulable state.

Myeloproliferative disorders and inherited or acquired coagulation disorders are also incriminated, but in 8-15 % of cases have been reported to be idiopathic in the recent literature.

Case report: We report the case of a 52-year-old female, non-smoker, which denies completely alcohol consumption, with known hypertension, dyslipidemia, ischemic heart disease, stent on the coronary arteries, under treatment with beta blockers and antiplatelet, presented into the ER with a moderate to high intensity diffuse abdominal pain, nausea and vomiting, for at least 10 days.

The diagnosis was confirmed on a CT scan which showed thrombosis at all levels of portal venous system with LSH and spleen infarction.

We have started to investigate this patient for autoimmune, neoplastic, hematologic and hepatic diseases, in which all tests were resulting negative.

Conclusions: Portal vein thrombosis on a middle age woman without evident cause, as the etiology of the abdominal pain is very uncommon and raises a hard question: what are the etiologies and prevalence of this disease at non-cirrhotic patients?

## Self-expandable metallic stents – an efficient palliative treatment for inoperable esophageal malignant tumors

**M. Pătrășescu, P. Nuță, Raluca S. Costache, Săndica Bucurică, B. Macadon, Andrada Popescu, C. Bețianu, V. Balaban, A. Gavrilă, Roxana Călin, A. Lungu, C. Grozavu, Mariana Jinga, Florentina Ioniță Radu**

Esophageal self-expandable metallic stents (SEMS) are frequently used in digestive oncology endoscopy for palliative treatment concerning malignant stenosis that are not suitable for surgical treatment. The most frequent symptom to be treated is severe dysphagia that hampers oral nutrition.

The complications associated with the use of SEMS may be early (within 2-3 weeks) or late. Early complications appear in 30% of patients and comprise of: migration of the stent (the most frequently encountered), prolonged retrosternal pain (12), severe hemorrhages (1%) and mediastinal perforation (rarely). The current paper reveals our 4 case experience of esophageal malignant stenosis.

The palliative treatment of dysphagia alleviates the degree of severity of this symptom from grade 4 (no esophageal passage of food) to grade 2 (passage of semisolids) (Nuehau classification). The deployment and the patency of the stents were performed under radiology and endoscopy control.

The most frequently encountered side effect was retrosternal pain, swiftly responsive to medical treatment with Metamizol.

## A rare case of acute liver failure caused by hepatitis E virus infection in a neoplastic patient

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

Introduction: We are presenting a case of acute liver failure, in a hospitalized patient with two neoplasia.

Case report: A 77-year-old male ex-smoker with lower lip squamous cell carcinoma diagnosed in 2014, came to our gastroenterology unit for jaundice, pruritus, fatigue and dysphagia, accompanied by acholic stools.

The patient had an acute hepatocytolytic syndrome (AST = 3010 UI/ml, ALT = 2559 UI/ml), a cholestatic syndrome and coagulopathy.

Viral markers were taken and send to laboratory for testing (IgM and IgG immunoglobulins for HAV, HEV, CMV, EBV, AgHBs and HCV antibodies), and supportive hepatic treatment was immediately conducted. We asked for the infection disease doctor opinion and took also the leptospira IgM antibodies.

After a few days the hepatocytolytic syndrome improved, we performed a gastroscopy and found a medium esophageal tumor. The thoracic-abdomen CT scan confirmed the esophageal tumor with lung metastases.

The laboratory tests showed rapid increase of cholestatic enzymes (TBil = 34 mg/dl, NCBil = 21.23 mg/dl), although the hepatocytolytic syndrome significantly improved (AST = 371 U/L, ALT = 449 U/L), and confirmed hepatitis E virus acute infection. Unfortunately the patient had signs of acute liver failure, encephalopathy and made also acute pancreatitis and IDC (he died in less than one month after the onset of symptoms despite the intensive hepatic treatment).

Results and conclusion: Acute viral hepatitis due to HEV is usually an acute, self-limiting illness, with bad evolution in pregnant women and chronic liver disease.

When complications occur – acute liver failure, the goals of treatment are to prevent further deterioration in liver function, reverse precipitating factors, and support failing organs.

## Inflammatory bowel disease in neoplastic patients – a diagnosis and therapeutic challenge

**Geanina Spulber, R. Mateescu, Florentina Ioniță Radu, Mariana Jinga, Raluca S. Costache, M. Pătrășescu, P. Nuță, Andrada Popescu, B. Macadon, Săndica Bucurică**

Introduction: Inflammatory bowel diseases are a group of lifelong diseases arising from an interaction between genetic and environmental factors, and also they are complex disorders reflected by wide variation in clinical practice observed predominantly in the developed countries of the world.

Patients may live with a considerable symptom burden despite medical treatment in the hope that the etiology of ulcerative colitis will shortly be revealed and a cure emerge, and clinicians have to advise patients on the basis of information available today. Despite randomized trials there will always be many questions that can only be answered by the exercise of judgement and opinion. This leads to differences in practice between clinicians.

Case report: A 55 year-old male with a history of ulcerative colitis for 6 years in therapy with Salazopirine 4g/day, left inferior limb condrosarcoma in multiple sites for which he suffered a thigh amputation and chemotherapy diagnosed 3 years prior to presentation for flare of UC and cortico-

dependent disease.

Discussion: There are a few studies addressing the overall cancer risk associated with thiopurine treatment in patients with IBD found no significantly increased risk but they have limited power, lack adequate control groups, present a limited degree of detail regarding drug exposure, or represent restricted populations.

Conclusion: Inflammatory bowel diseases represent a diagnostic challenge for gastroenterologist because of their pleomorphic manifestations which exposes a wide area for differential diagnosis and also they are a therapeutic challenge especially in neoplastic patients in which we have to estimate of the overall risk associated with the appropriate therapy we need to support clinical decision making in weighing the benefits against risks of therapy.

## HCV infection - where do we stand?

**Florentina Ioniță Radu, Andrada Popescu, Mirela Chereja, A.I. Gavrilă**

Introduction: Our objective is to review current international data regarding hepatitis C virus infection, current incidence and prevalence, importance of early detection and treatment and global burden.

Materials and methods: Hepatitis C virus (HCV) is a leading cause of chronic liver disease, cirrhosis and hepatocellular carcinoma, with approximately 170 million (~3% of the global population) being affected.

Transmission of HCV is primarily through exposure to infected blood (transfusion before 1990`s, intravenous drug use, high-risk sexual activity, solid organ transplantation from an infected donor, occupational exposure, hemodialysis) and 70-85% of infected individuals develop chronic liver disease.

Taking into consideration that acute and chronic compensated hepatitis are asymptomatic in most patients, screening for infection using enzyme immunoassay to detect the HCV antibody is of great importance. Unfortunately, despite the fact that new direct antiviral drugs with success rates of over 90% are available, not all patients can have access to them via the national health system.

Our wish is that, in the near future, all chronic hepatitis cases can benefit from the best treatment available, as this is the best way to prevent natural evolution to cirrhosis and hepatocellular carcinoma, but also lower prevalence and ideally, some day, eradicate this disease.

Results and conclusion: Unfortunately, in the XXI`s century, despite the incredible scientific progress that allows easy diagnosis and next to ideal treatment of this viral infection, morbidity and mortality due to complications of chronic C hepatitis are still high, but the future seems bright.

## Quality in colonoscopic screening

**Cătălina Diaconu, Florentina Ioniță Radu, Mariana Jinga, P. Nuță, B. Macadon, Săndica Bucurică, M. Pătrășescu, Andrada Popescu, Gaudia Mănescu Avram, D.O. Costache, Raluca S. Costache**

Introduction: For a long period of time the only method of screening in colorectal cancer was the guaiac fecal occult blood test. Colonoscopy has been taken into consideration more and more, having a higher specificity and sensitivity. Early detection of cancer increases the chance of successful treatment.

Studies show that screening colonoscopy reduces cancer incidence by 74% and right-sided cancer by 64%. There are plenty of risk factors in colorectal cancer, some that might be diagnosed endoscopically: polyps, prior colorectal cancer, familial adenomatous polyposis, inflammatory bowel disease or hereditary non-polyposis colon cancer. Combining the two diagnosis tests: fecal occult blood test and colonoscopy is a possible screening strategy, more effective than the tests conducted alone.

Patients and methods: We performed a retrospective study between January 5$^{th}$ and May 5$^{th}$ 2016 and included 171 patients diagnosed by colonoscopy with colon tumor (benign or malignant). Moreover, hystopathological examination was made on the masses taken through biopsy.

Results: The median age of our patients was 64.22 years, with a male prevalence of 72.51%. A total of 209 tumors were diagnosed, most of them in the descending colon, followed by rectal masses. Only 6.7% on the tumors were present in the cecum. Most of the tumors were under 1 cm (141). Most of the benign tumors (63%) were low grade dysplasia, 34% of the tumors were medium-grade dysplasia and only 7.3% are high-grade dysplasia. 29 out of 171 patients were diagnosed with adenocarcinoma.

Conclusion: Colonoscopy has become fundamental in the screening of colorectal cancer. There are many factors that influence the quality of colonoscopy: preparation, endoscopy unit and examiner. Determining the pathology of polyps has been the focus of many studies throughout the years.

## The effectiveness and tolerability of DAA regimen (Viekirax+Exviera±Ribavirin) in patients

**I. Ștefan, Florentina Ioniță Radu, C. Bănică, B. Cîrciumaru, O. Dunăreanu, V. Gheorghiță, S. Ionescu, I. Pandrea, O. Călina**

Introduction: This study evaluates the effectiveness and tolerability of IFN-free therapy (Viekirax+Exviera±Ribavirin) in subjects with chronic HCV infection with genotype 1b and high degree of fibrosis (F3, F4).

Materials and methods: We included 30 patients (18 men + 12 women) with chronic HCV genotype 1b infection, aged 43 to 77 yo, with hepatic fibrosis F3/F4 (1 subject with F3 + 29 subjects with F4) and HCV RNA ranging from 20580 to 6500842 IU/ml, of whom 20 had been previous relapsers, 4 non-responders, and 6 naive.

Patients received Viekirax 12.5/75/50 mg + Exviera 250mg (subjects with F3) + Ribavirin 1/1.2g, according to the patient's weight (subjects with F4), daily for 12 weeks. Blood samples were collected at 4, 12, and 24 weeks.

We determined sustained virological response (SVR), treatment discontinuation rates and the occurrence of adverse events.

Results: Of 30 patients enrolled, SVR occurred in 28 (93.33%). The SVR rates among subgroups were: 100% in cases of cirrhosis, 100% in previous non-responders, 95% in previous relapsers, and 83.33% in naive patients.

Two patients discontinued treatment (6.66%) – the only patient having liver fibrosis F3, but serious comorbidities, died and another suffered a stroke because of uncontrolled hypertension.

Among the rest, the most frequent adverse events were fatigue (83.33%), pruritus (76.66%), nausea (56.66%) and 10 patients (33.33%) developed anemia.

Conclusions: IFN-free therapy has significantly improved SVR rates in patients with chronic HCV genotype 1b infection, reaching an almost unbelievable level of 96.66% in patients with fibrosis F4, with acceptable adverse events and tolerability for most subjects.

## Gastric xanthomas – clinical and endoscopic characteristics in a large volume center

**V.D. Balaban, Georgiana Robu, Roxana Petre, T. Anghel, Andrada Popescu, M. Pătrăşescu, B. Macadon, Săndica Bucurică, Raluca S. Costache, P. Nuţă, Florentina Ioniţă-Radu, Mariana Jinga**

Introduction: Gastric xanthomas are yellowish plaques characterized by the presence of lipid-laden histiocytes, located in the gastric mucosa or submucosa. Although their significance is not clearly known, some reports have associated them with mucosal injury and even premalignant conditions of the stomach. Our aim was to evaluate the clinical and endoscopic characteristics of gastric xanthomas in our endoscopy setting.

Methods: We retrospectively evaluated all upper gastrointestinal endoscopies performed in our high-volume center during the last three years (June 2013-June 2016). We selected patients in whom a xanthoma was described in the endoscopy report and confirmed by biopsy.

Results: Altogether 43 patients, 32.56% female, mean age 58 ± 11 years, had at least one xanthoma described in their endoscopy report. Among them, 11 were not biopsy-confirmed, and 6 were not biopsied. 26 patients were included in the final analysis – 11.5% had multiple xanthomas (range 2-5), while the others were single lesions. Regarding their distribution, 38.5% were located in the fundus, 19.2% in the body and 42.3% in the antrum. 20/26 (76.92%) of patients had associated gastritis – mostly erythematous-exudative (70%) and atrophic with/without metaplasia (15%). H. Pylori was tested in 14/26 patients and was positive in one third of them. Almost half of patients (46.15%) had associated dyslipidemia, mostly hyper-trygliceridemia. Only 7.69% had cholestasis.

Conclusions: In our cohort, gastric xanthomas were mostly solitary lesions, located in the fundus or antrum, associated with gastritis and dyslipidemia.

# OP session MD5

## Not all you see is a tumor

**C. Sandu, Mihaela Gheorghiu, B. Teodorescu, M. Ștefănescu, F. Năftănăilă**

Cerebellar abnormalities have a wide spectrum and can reveal us a surprising appearance and behavior, often becoming an interdisciplinary challenge.

The frequency and importance of the cerebral posterior fossa assessment have increased over the last years, having a close connection with the development of magnetic resonance technique.

The differentiation between tumor or non-tumor lesions requires a multimodal diagnostic approach, especially for the tumor-like forms of vascular, inflammatory and developmental abnormalities, that makes the definitive diagnosis difficult.

There are still problems to classify these potentially pathological features into certain groups. A good example could be dysplastic cerebellar gangliocytoma (Lhermitte-Duclos disease, part of COLD syndrome), a borderline disorder with slowly progressive tumor, hamartomatous and malformative elements, whose pathogenesis remains unknown. Recognition of this disease could help us to detect concomitant malignancies in these patients.

Posterior fossa lesions may influence prognosis and quality of life similar to supratentorial structures and we should always offer the same consideration to assessment.

## Evaluation of 3D conformational techniques for breast cancer radiotherapy

**Alina Tănase, M. Dumitrache, Ș. Vlad**

Introduction: High incidence of breast cancer and anatomical variations from one case to other, led to different approaches for treatment planning, in order to fulfill QUANTEC dose constraints. Patients anatomy show a large variation in terms of geometry, and flexibility of a single technique is limited. In general, if we use photon tangential beams (internal – external) to get a homogeneous dose distribution, fluency must be modeled using filters or field in field technique. For patients with small breasts or chest wall with important concavity, classic technique is not always suitable due to the relatively high dose received by ipsilateral lung.

Materials and methods: For treatment planning evaluation we selected a case which has a relatively pronounced concave chest wall. A dose reduction was investigated in the ipsilateral lung through a different approach (3-4 fields) related to target volume. We analyzed the dose – volume histogram (DVH) obtained for the case under discussion, 3D dose distribution, homogeneity and conformity indices for the two different treatment planning methods.

Conclusion: In some cases the classical approach (tangential beams) is not appropriate, especially for pronounced concave geometry; the study shows that we can get a dose reduction to the ipsilateral lung using three fields technique, but with the disadvantage of a slight fall of dose homogeneity in the target volume. Meanwhile, according to conformity index (CI), this technique shows higher values of CI, compared to the classical approach.

## Evaluation of lymph nodes using ultrasound

**Carmen Tipar, Valerica Voicu, C. Mazilu, Raluca Mititelu**

Introduction: Ultrasound evaluation of lymph nodes is an extension of the clinical examination. Detection and characterization of nodules is very important given the number of bodies who may be inflammatory or neoplastic diseases. Lymph nodes may be inflammatory, reactive, tumor or mixed.

Aim: Ultrasound's contribution is to highlight the semiological characterization of lymph nodes and the role it has in differentiating benign from malignant lymph nodes.

Material and method: A retrospective study of patients who came to our department was performed to carry out an ultrasound ganglion (lateral-cervical, axillary, and inguinal). The study comprised a total of 15 patients.

Results: Of the total number of patients 6 showed with benign lymphadenopathy, while the rest had malignant lymph trait, their trait was later confirmed by pathological examination. Patients showed semiologic elements consistent with benign and malignant adenopathy.

Conclusion: Ultrasound imaging is useful exploring lymphadenopathy, and features standard ultrasound and color Doppler examination that are useful in their analysis. Ultrasound allows differentiation of metastatic lymph nodes reagents with a specificity of 83% and sensitivity of 95%.

## Smoldering systemic mastocytosis

**Florina Topliceanu, Cristina G. Vîrlan, M. Șotcan, E. Dănăilă**

Introduction: Systemic mastocytosis, often termed systemic mast cell disease (SMCD), is a myeloproliferative neoplasm characterized by infiltration of clonally derived mast cells in different tissues, including bone marrow, skin, the gastrointestinal tract, the liver, and the spleen.

Manifestations of systemic mastocytosis may include the following: anemia, coagulopathy; GI symptom (abdominal pain); gastroesophageal reflux disease (GERD); pruritus, flushing, anaphylactoid reaction.

The major diagnostic criterion for systemic mastocytosis is the presence of dense infiltrates of mast cells in bone marrow or other extracutaneous tissues. Mast cells should be seen in aggregates of 15 or more.

Material and method: We present the case of a 68 years old men who was admitted on general surgery for abdominal pain in the left flank and left iliac fossa, weakness and weight loss.

Results: We started the investigation by performing a thoraco-abdomino-pelvic tomography which identified hepatic hilar and great omentum lymphadenopathy and hepatosplenomegaly. A lymph node biopsy was performed and histological and immuno-histochemical exams revealed systemic mastocytosis. A bone marrow biopsy was also performed which revealed mast cells infiltration of 45-50% thus confirming the diagnosis of systemic mastocytosis.

Discussions: Given the presence of B-findings (splenomegaly, lymphadenopathy) and none of the C-findings (organ failure) the patient is diagnosed with smoldering systemic mastocytosis. Under corticosteroid (Medrol) treatment the patient's condition has improved. The patient will always have on him an epinephrine pen (high risk of anaphylaxis).

## Hodgkin lymphoma – prognosis and management

**Cristina Vîrlan, Florina Topliceanu, E. Dănăilă, M. Șotcan**

Introduction: Hodgkin lymphoma is a potentially curable lymphoma. Prognosis depends upon a large number of variables, including the stage of disease, presence or absence of B symptoms, age of patient and biological determinants, so the overall 5-years survival can go from 91% to 41%.

Material and methods: This is a case report of a 42 years-old man that presented to our clinic with high, prolonged fever, night sweats and weight loss. Together with the laboratory and imaging work-up, the diagnosis was strongly suggestive for Hodgkin Lymphoma, but the patient refused any further investigation.

Results: After 6 months from the initial presentation, the worsening state of the patient encouraged him to continue the management. The diagnosis of Hodgkin lymphoma was certified by the histopathological studies. Imaging studies showed general involvement of ganglia and dissemination to extranodal organs (liver and spleen). Chemotherapy was started. After 3 cycles, a CT-scan was performed that showed favorable evolution. An intermediate PET-CT evaluation presented complete remission.

Discussion: Even though Hodgkin lymphoma is a curable cancer, delay of treatment and spreading of the disease can bring a very low prognosis. Correct chemotherapy and supportive treatment may change the odds and result in complete remission.

## Common errors in doctor-patient communication in oncology

**Ș. Vlad, M. Matei, G. Bălașa**

Objectives: Doctor-patient communication is essential in medicine. Communication aspect of the physician-patient relationship is very important in oncology, where diagnosis, prognosis and treatment decision are difficult tasks for oncologists. We try to identify, first the most frequent errors and the barriers in communication with patient in oncology, and second the interventions to enhance patient-centered communication and patient satisfaction and outcomes.

Methods: We identify the most frequent errors in communication with cancer patients: communicating in medical jargon, insufficient time for preparing communication of the cancer diagnosis or to discuss the prognosis, the use of internet in healthcare, not listening for patient's emotions and fears, the symptom-focused nature of actual communication in oncology. We present the most efficient interventions to eliminate this errors and to enhance the doctor-patient relationship.

Conclusions: Having good communication skills, knowing the errors and barriers for efficient communication with cancer patients is essential to establish a good doctor-patient relationship. Efficient communication is important because it improves patient satisfaction, compliance with oncological treatment and patient's emotional and functional status.

## Retrospective analysis of patients with cancer of the cervix attending radiotherapy department – statistical analysis of DVH

**Maria Vlăsceanu, Alina Tănase, M. Dumitrache, Ş. Vlad, G. Bălaşa, M. Matei**

Aim: It is well known that, the cervix cancer continues to be one of the most common gynecologic malignancy not only in Romania, but around the world. The aim of this study was to investigate the side effects of the small bowel in cervix cancer RT treatments, using 3D CRT technique, in accordance with our protocols.

Materials and methods: 177 selected patients were treated using box (four field) technique. Prescribed doses to PTV were between 45 Gy and 54 Gy with a fractionation of 1.8 - 2.0 Gy/session.

Treatment planning was done using Eclipse ver.11 with AAA algorithm and delivered by a UNIQUE medical accelerator with 80 leaves MLC.

3D reconstruction was based on a CT SIM SOMATOM Spirit from SIEMENS. For all patients we have used specific immobilization systems from Q-fix. Onboard imaging orthogonal technique was used for optimum positioning of every single case, starting with 3 consecutive verification and rechecked every two days along the whole treatment. Almost 95% of the patients in this study finished their RT treatment without any major complication.

Results and conclusion: The analysis was performed mainly on small bowel Dmax and V45. The delineated volume considered was the potential space within peritoneal cavity (OAR). In cases where radiotherapy was delivered concurrently with chemotherapy were observed side effects (e.g. nausea, vomiting, and diarrhea) for Dmax exceeding 48-50Gy. On the other hand, no statistical correlation between V45 and major side effects were observed for OAR volumes between 100-600 cc.

## Ultrasonography importance in parotid lithiasis

**Valerica Voicu, Carmen Tipar, Raluca Mititelu, C. Mazilu**

Introduction: Sialolithiasis is caused by the obstruction of a salivary gland or its excretory duct by formation of calculi. It commonly involves the submandibular gland (80-95%), less frequently the parotid (5-20%) and the sublingual glands (1-2%). Parotid lithiasis usually appears on male patients between the age of 30 and 60. Calculi affecting the parotid gland are usually small, unilateral, and are located in the duct.

Material and methods: A 54 years old male came to the maxillofacial department of our hospital because he accused acute pain and unilateral inflammation in the left cheek region. The pain aggravated at mealtimes. There was no history of trauma at this level. Because ultrasound represents an excellent diagnostic technique, it was the first investigation for which he has opted.

Results: Ultrasound revealed a dilated duct with a relatively sinuous path along the entire length of 14 mm, with 8 mm diameter calculi.

Discussions and conclusion: The etiology and pathogenesis of salivary calculi is not known. Several hypotheses put forward to explain the etiology of these calculi include: mechanical, inflammatory, chemical, neurogenic, infections, strange bodies. Traditional theories suggest that the formation of sialoliths occur in two phases: formation of a central core and a layered periphery. Whereas parotid sialoliths are thought to be formed around a nidus of inflammatory cells or a foreign body.

Usually the parotid sialolithiasis are unilateral and they predominantly affect the salivary duct than the gland. Treatment depends on size and location of sialolith.

## The incidence of tracheoesophageal fistulas and its major determinant factors

**B. Petre, Denisa Ghinescu, Ioana Oprea, O. Bratu, N. Tănase, D. Corneci, Mirela Bidilică, L. Ene**

A tracheoesophageal fistula is a congenital (frequency 1-5000) or acquired communication between the trachea and esophagus. This condition often lead to severe and fatal pulmonary complications.

In congenital condition diagnostics was made immediately following birth or during infancy.

Acquired tracheoesophageal fistula occur secondary to malignant infection, disease, trauma, and ruptured diverticula. In ICU characteristic is post-intubation tracheoesophageal fistula following prolonged mechanical ventilation with an endotracheal or tracheostomy tube.

If the tube cuff is overinflated, this will leads to compression of the rear wall membranous trachea, which in time goes to ischemia and necrosis, forming an abnormal communication between the trachea and esophagus. Another complication of the overinflated tube overinflated are tracheal stenosis or bleeding.

If cuff pressure is too low then air leaks can appear or

microaspiration. This is the reason that cuff pressure must be kept within an optimal range (20-30mmHg) that ensures ventilation and prevents aspiration while maintaining tracheal perfusion.

Besides this major determinant factor – cuff pressure, are described many precipitating factors like age, nutritional status of the patient, presence or not of sepsis, hemoglobin, steroids, presence of gastric tube.

Appear of pulmonary fistula and subsequent contamination of the lung may lead in suppurative complication. This increase the use of antibiotics and prolong ICU stays.

The occurrence of this complication in the evolution of hospitalized patients in ICU have a negative prognostic and is associate with an increase in mortality, in spite of fast diagnostic and rapid therapeutic approach. Extremely important it is to prevent this complication by identifying and removing risk factors.

Daily cuff pressure measurement and reducing period of mechanical ventilation are the keys in preventing this complication.

### A rare diseases in adult – pulmonary Langerhans cell histiocytosis, case report and literature review

**Claudia Popovici, Gabriela Andraș, Ioana Ștefănescu, C. Ioniță, I. Jascu, E. Firoiu, Florina Vasilescu**

Cigarette smoking has a clear epidemiological association with lung diseases, characterized by chronic inflammation of both the bronchiolar and interstitial lung compartments.

Adult pulmonary Langerhans' cell histiocytosis (PLCH) is a rare disorder of unknown etiology that occurs predominantly in young smokers, with an incidence peak at 20–40 years of age.

High-resolution computed tomography (HRCT) of the chest is essential to the diagnosis. A high macrophage count in broncho-alveolar lavage (BAL) fluid is a common but nonspecific finding that merely reflects exposure to tobacco smoke.

BAL is useful for eliminating infections and the other infiltrating lung disorders that can be seen in young adults. Langerhans' cells can be identified in BAL fluid, but, in contrast to what was initially hoped, this test shows a very low sensitivity and is rarely useful in the diagnosis of the disease.

The definite diagnosis of PLCH requires identification of Langerhans' cell granulomas, which is usually achieved by surgical lung biopsy at a site selected by chest HRCT. In practice, however, lung biopsy is performed on a case-by-case basis.

No effective treatment is available to date, and improved understanding of the mechanisms involved in the pathogenesis of PLCH is urgently needed, and should help in the development of specific therapeutic strategies for patients with this orphan disease.

Smoking cessation may prove to be the most important and effective therapeutic option for patients with "smoking-related ILD," and should be strongly encouraged.

# OP session MD6

### Random and systematic positioning error study in radiotherapy of cervix – Emergency Central Military Hospital experience

**V. Bălăbăneanu, M. Dumitrache, Alina Tănase, Maria Vlăsceanu, Ș. Vlad, M.C. Matei, G. Bălașa**

Introduction: The purpose of this paper is to analyze and recommend an appropriate method for taking into account geometric uncertainties during RT treatments of cervix cancer, based on verification using MV Portal Imager and to provide guidelines for the local clinical implementation at Emergency Central Military Hospital" Dr. Carol Davila".

Materials and methods: During this study we identified 26 cases between 2014 and 2016, treated using 3D CRT box technique. Doses prescribed to PTV were between 46-50.4Gy (1.8-2.0 Gy/fraction). Treatment planning was performed using Eclipse v.11 and delivered by an UNIQUE medical accelerator. The patient positioning was based on EPID orthogonal images technique and offline reviewed in ARIA environment, where shifts for all 3 axis were determined for data study set. Specific immobilization tools from Q-fix were used in all cases.

Results and conclusions: It is well known that the overall mean set-up error is an indicator of any unwanted systematic component acting on all studied patients. Therefore, analyze is based on the individual mean set-up

and random error calculated using shifts from offline review in order to determine the optimum PTV margins. By implementing the study results, our opinion is that it can be achieved better coverage for target volumes for cervical cancer in clinical daily practice.

## Percutaneous core needle biopsy under CT-guidance

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

Introduction: The treatment of cancer has significantly changed over recent years, with the advent of numerous targeted therapies, therefore a more complex approach of pathological diagnosis is being necessary.

Additional tests such as immunohistochemistry and molecular biology became almost indispensable and increased the need for adequate tumor samples. For this purpose, percutaneous core needle biopsy under image guidance has become widely accepted.

It is the baseline method when surgery is not possible nor indicated, offering a more adequate sample than fine needle aspiration.

Objectives: The aim of this report was to analyze the degree of concordance between the computed tomography and histopathological results in a cohort of patients undergoing a percutaneous needle biopsy under CT-guidance. We also wanted to provide information on our experience with CT-guided biopsy and to evaluate the accuracy and utility of this procedure.

Materials and methods: We retrospectively analyzed the results of CT-guided biopsies performed between January 2015 and July 2016 at the Central Military Emergency University Hospital "Dr. Carol Davila", collected from the hospital's database. Variables such as gender, age, CT findings, and histopathological features were assessed.

Conclusions: Percutaneous core needle biopsy under CT-guidance is a useful, minimally invasive and less expensive procedure, with a high rate of accuracy in the diagnosis of malignant lesions, providing adequate tissue specimens for the complete spectrum of the histopathological, immune-histochemical and molecular tests in different cancers in order to guarantee best patient care.

## Cancer is not a matter of age... Case report and literature review

**M. Curea, O.C. Voinea, Florina Vasilescu, L. Eftimie, Liana Toma, Rodica Bulata, M. Dumitrescu**

Objectives: Metastases are a common cause of death in oncologic patients. When are found at first presentation for cancer diagnosis, life expectancy is very pour. This issue presents 3 problem: 1. the asymptomatic but rapid progression in some of the malignant proliferative lesions. 2. The attention by the general practitioner at the periodic exams; 3. The medical education of people

Methods: We present the case of a 29 years female, who died in the Neurology Department of our hospital. At presentation she came with signs of a stroke, but the medical papers revealed that the patient had been diagnosed a week before in another hospital with multiple tumors involving liver (for which she received emergency surgery), kidney, spleen, brain (cerebellum) and interventricular septum of the heart, without knowing the primary site. An autopsy was performed.

Results: The autopsy revealed the presence of tumors in the above mentioned organs and a tumor process involving the left ovary, adhering to the mesenteric and intestinal structures.

Conclusion: This case is a proof of the autopsy exam importance in explaining the thanatogenesis. Even postmortem, for medical knowledge and for the deceased's family, the histopathological diagnostic must be completed. It is also educational for general physicians to be aware of this issue. And it is important to keep in mind that some lesions may progress in a rapid but silent manner.

## Is the tissue always necessary – correlations between cytological and histological changes in pathology

**L. Eftimie, M. Curea, Rodica Bulata, Liana Toma, Florina Vasilescu, A. Calu, O.C. Voinea, M. Dumitrescu**

Introduction: The clinical and imagistic diagnosis of malignancy must be confirmed in pathology departments. Histopathological diagnosis has evolved during years with the use of immunohistochemistry and molecular biology. However, histopathology and cytopathology are the main tools utilized in the diagnosis of cancer.

Objective: The aim of this study was to compare the accuracy between cytopathology and histopathology used in the diagnosis of cancer at the same patient, knowing that the

costs for histological studies are higher than cytology.

Materials and methods: Medical records of patients requiring biopsy and cytology for diagnosis that were studied between August 2015 and July 2016, were retrospectively evaluated. Cytology samples were obtained by liquid aspirated from different parts of body and histopathologic samples was made by biopsy (less invasive, surgical techniques or at necropsy). Coloration methods was standard – Hematoxylin and Eosin (H&E) for histology and Papanicolau for cytology. On the cytology cases studied, we have noticed presence or absence of atypical neoplastic cells which we have correlated with biopsy diagnosis.

Conclusions: This study confirmed that cytological examination is a reliable and useful procedure only for rapid diagnostic and staging of malignant tumors (tumor invasivity) due to faster results, lower cost and lower invasiveness. However, cytology is not always sufficient without biopsy for a complex oncological treatment.

## Role of pelvic MRI in establishing the clinical target volume in radiotherapy treatment of localized prostate cancer

**M.C. Matei, Ş. Vlad, G. Bălaşa, Manuela Bârnă**

Purpose: To compare the prostate volumes defined on magnetic resonance imaging (MRI) and non-contrast computerized tomographic (CT SIM SOMATOM Spirit - SIEMENS) scans used for three-dimensional (3D-CRT) treatment planning.

Methods and materials: Eight patients were simulated for treatment using standard immobilization devices from Q-fix. 3-D images were used to compare prostate volumes defined by MRI (4–6 mm thick slices) and CT images (3-5 mm thick slices). Segmentation ability of the following pelvic structures: prostatic apex (PA), prostate, rectum, bladder, and seminal vesicles (SV) were evaluated by four independent observers. Prostate volumes were calculated in $cm^3$ using Eclipse ver.11 3D planning system. MRI/CT images were merged using bony anatomy to define the regions of discrepancy on prostate volumes.

Results: The mean prostate volume was 16 % larger (range 5% to 29%) when defined by non-contrast CT compared to MRI. The areas of non-agreement tended to occur in three distinct regions of discrepancy: (a) the posterior portion of the prostate, (b) the posterior-inferior-apical portion of the prostate, and (c) the apex.

Conclusion: There is a tendency to overestimate the prostate volume by non-contrast CT compared to MRI. Awareness of this tendency should allow us to be more accurate in defining the prostate volume during 3-D treatment planning.

## Use of lymphoscintigraphy in detection of sentinel nodes

**C. Mazilu, Raluca Mititelu, Valerica Voicu, Carmen Tipar, B. Marinescu**

Introduction: Regional lymph node involvement in oncologic patients is a very important prognostic factor, decreasing the 5-year survival rate. This has led to elective lymph node dissection in an effort to better classify patients for prognosis and treatment regimens. In complete lymphadenectomy, short-term complications include seroma, wound infection and breakdown, lymphedema, and paresthesia; long-term complications include lymphedema, paresthesia, and hernia formation.

Therefore, lymphoscintigraphy could help identify the lymph node at highest risk for metastasis, obviate radical lymph node, and possibly prolong survival in such patients.

Material: Lymphoscintigraphy for detection of sentinel nodes in patients with breast cancer or malignant melanoma was performed using intra-dermic peritumoral injection of Tc-coloidal agent (Nanocoll). We administered 2 mCi of radiotracer (4 sites x 0.5 mCi each). Dynamic and static acquisitions were performed using a gamma camera with double-header (PICKER AXIS). Sentinel node resection was performed after at least 6 hours following tracer administration.

Method: According to suspected pathology, planar and dynamic images were centered on injection site, with images of sentinel node - first lymph node which shows a communication with suspected/confirmed tumor location. Initial anterior and posterior images were completed with lateral and oblique images, obtained later. Sentinel node resection was performed in some cases in Plastic Surgery Department, using an intraoperatory gamma probe, followed by resection of the lymph node(s) with highest count activity.

Results: In most of the cases, sentinel node was detected in expected area – popliteal and inguinal region for foot/leg lesions, ipsilateral axilla for trunk lesions. Some patients revealed more than one sentinel nodes, located in the same/different lymph nodes stations. Due to guided surgical intervention and minimal post-surgery effects, lymphoscintigraphy is very useful in targeted lymph node resection in selected patients.

# OP session MD7

## A rare cause of rheumatoid syndrome

**Oana Stancu, V. Smedescu, I. Copaci, M. Șotcan, C. Jurcuț**

Establishing the etiology of a rheumatoid syndrome represents a challenge in daily clinical practice. Beside the common causes it is important to take into account the unusual etiology when we organize the imaging techniques and laboratory work-up.

We present the case of a 52-years-old, admitted in our department for diffuse bone and joint pain accompanied by important morning stiffness, involuntary weight loss and normochromic anemia of unknown etiology. Laboratory tests were negative for markers of autoimmune or neoplastic diseases. Moreover, upper and lower endoscopy were negative for any relevant disease. We performed a computed tomography which revealed: small lymph nodes <2cm and mixed bone lesions (appearance also revealed by bone scintigraphy). Serum protein electrophoresis and immune-fixation were normal. We performed flow cytometry examination of the peripheral blood that suggested the diagnosis of mantle cell lymphoma with minimal peripheral discharge. The next step was osteomedular biopsy with histopathology and immune-histochemical examination showing a hyper-cellular bone marrow with the presence of common focal infiltrates consisting of atypical mast cells. At immune-histochemical examination, aberrant presence of CD25 was showed. The final histopathological appearance was of systemic mastocytosis. Regarding the positive diagnosis of systemic mastocytosis we met the World Health Organization criteria. In patients with bone and joint symptoms without a very evident cause, the systemic mastocytosis might be taken into account.

## What surprises can hide subacute infective endocarditis

**Oana Stancu, C. Jurcuț, V. Dușescu, Anca Manolache, V. Smedescu, I. Copaci**

Introduction: Acute mesenteric ischaemia (AMI) represents an important surgical emergency, which has a high morbidity and mortality. The most frequent causes of AMI are represented by arterial emboli, which are derived from cardiac sources, rarely in infective endocarditis (IE).

Material/methods: We present the case of a 67-year old man, smoker, known with arterial hypertension and COPD, who presented in our department for fever, marked fatigue, diffuse abdominal pain, and right upper limb paresthesia, started 5 days before admission. Three weeks before, he was admitted in another department for fever and cough, diagnosed as pneumonia and treated with antibiotics. During the hospitalization he presented acute abdominal pain, was diagnosed with acute mesenteric ischemia and an enterectomy with termino-terminal anastomosis was performed. Later, he showed transient clinical signs of acute right upper limb ischaemia. Transthoracic cardiac ultrasound was normal but transesophageal revealed a large vegetation on the aortic valve with no signs of regurgitation. Blood cultures were negative. After one week of afebrility fever reappears, despite antibiotic treatment, generated by an abdominal collection who was surgical treated and an ileostomy was performed. The evolution was favorable, but after 3 weeks of treatment he accused fever and chills, developing right jugular and subclavian veins thrombosis. We started anticoagulation therapy with NOAC with complete resolution.

Discussion/conclusions: IE is a complex disease, with various symptomatology, with many potential complications, very well illustrated by this case.

## Ultrasound Power Doppler evaluation in patients with rheumatoid arthritis with anti TNF treatment

**Dana Anghel, M.L. Ciobîcă, N.C. Anghel, G.D. Stoicescu, A. Anghel, Maria M. Negru, C.V. Jurcuț, Ancuța Coca**

Background: The goals of treatment for patients with rheumatoid arthritis are remission or decreased disease activity, stopping the rate of joint damage. The subclinical synovitis is associated, despite clinical remission, with progression of structural damage. Imaging technique such ultrasound is capable to provide a more accurate measure of disease activity.

Objectives: To assessed in patients with rheumatoid arthritis in clinical remission the presence of subclinical synovitis by ultrasound.

Methods: The study included 60 patients with RA (ACR/EULAR 2010 criteria) in clinical remission. Medium age is 45 (range 30-59) years. The patients was in clinical remission (DAS<2.6); 81% are female; 65% are positive for

rheumatoid factor and 85% for ACCP (anticitrullinate peptide antibody). PDUS examination was performed using Esaote US machine equipped with linear probes (5-12MHZ). PDUS (power Doppler ultrasound signal) investigated metacarpophalangeal and proximal interphalangeal joints and wrist symmetrical. PDUS used 4 grade (semi quantitative score) from grade 0 to 3. PDUS was performed at baseline and after 6 months to beginning of treatment. Furthermore, DAS 28 and laboratory data (ESR, CRP) were obtained at baseline and after 6 months to beginning treatment and clinical remission.

Results: All patients were in clinical remission after 6 months of treatment. PDUS were used as a measure of active disease. Synovitis grade 0 has been found in 28 patients (remission) PDUS grade 1 has been found in 13 patients, PDUS grade 2 in 9 patients and no PD grade 3 has been found after 6 months. PDUS was more frequently observed in the wrists (40%), MCP 2 (24%), PIP 3 (9%).

Conclusion:

1. The results of study confirm that clinical remission doesn't reflect an absence of synovial inflammation.

2. PDUS is useful in assessing of patients considered to be in remission. PDUS detected subclinical synovitis in the small joints of hands.

3. The other parameters don't show an evident association with the presence or absence of PDUS.

## Mixed connective-tissue disease

**L. Ciobîcă, I. Sîrbu, Ancuța Coca, F. Berghea, Alexandra David**

Mixed connective-tissue disease (MCTD) has been more completely characterized in recent years and is now recognized to consist of the following core clinical and laboratory features: Raynaud phenomenon, swollen hands, arthritis/arthralgia, acrosclerosis, esophageal dysmotility, myositis, lung fibrosis, pulmonary hypertension, high level of anti–U1-RNP antibodies, antibodies against U1-70 kd small nuclear ribonucleoprotein.

We are presenting the case of a 63 years old man who presented in our department for acrosclerosis affecting his upper arms and mostly his hands. The symptoms began 2 years ago with mild Raynaud phenomenon and the patient ignored them. His medical history includes cardio-vascular diseases and strokes (2 transient and one ischemic) in the last 3 years.

On the clinical exam we found acrosclerosis on the upper and the lower limbs, clinical signs of pulmonary emphysema and normal blood pressure.

Biological: he had inflammatory syndrome with normal CBC.

We've continued our investigation with capillaroscopy and nuclear antibodies. An echocardiography and computer tomography of his chest were also performed.

After all the data were obtained the diagnosis of mixed connective tissue disease was sustained.

## Sepsis – what we know by now

**S. Dogaru, C.B. Teușdea, M. Toma**

Sepsis in an increasing pathology on admission in emergency departments and intensive care units (about 20 %) being a major cause of mortality. Sepsis is also a major problem of public health (over 20 billion $- 5, 2% of admission funds in US). The heavy morbidity in growing old population let the sepsis survivors with long term physical, psychological and cognitive disabilities.

Increasing incidence and costs burden shifted the focus on algorithmic approach (the Surviving Sepsis Campaign guidelines), revised definitions and to early diagnosis.

Presepsin is used as one of the early inflammation markers. Increasing evidence suggest that presepsin compared to reactive C protein, procalcitonin, lactate or the newly introduced suPAR, sTREM1 or pre- adrenomedulin is at least a promising lead. Greater accuracy is obtained by combining sepsis with a score – MEDS, CURB65, or the newly introduced qSOFA. There are also problems to be solved – age and renal failure correlations.

# OP session MD8

## 5 years in Romanian national program for interventional therapy in ST-elevation myocardial infarction

**Alice Munteanu, S. Dumitrescu, L. Chiriac, D. Niță, R. Roșulescu, Nicoleta Avram, Irina Florescu**

Cardiovascular diseases (CVDs) represent the main cause of death globally, being responsible for 1/3 of all deaths, more than cancer, chronic respiratory failure or diabetes mellitus. CVDs are a major cause of disability requiring high costs for monitoring, treatment and long-term care at home. Almost 17 million people die annually from CVDs. The total number of deaths from CVDs is estimated to reach 25 million by 2020. Every five seconds a death occurs as a result of a myocardial infarction.

Acute ST-elevation myocardial infarction (STEMI) is characterized by prolonged (15-20 minutes), severe chest pain nonresponsive to nitroglycerin administration. ECG shows ST-segment elevation ≥ 0.2 mV in V2-V3 and/or ≥ 0.1 mV in other derivations or new onset left bundle branch bloc. Biochemistry shows: increasing of cardiac enzymes (troponin, CK / CK-MB) showing myocardial necrosis.

A national program called RO-STEMI started in Romania in 2010 in 12 centers organized in a 24/7 system in five regional networks. The implementation of the program had significantly reduced the number of patients treated conservatively (32%). 63% of patients with STEMI were referred to myocardial primary angioplasty, facilitated or delayed, and only 5% received thrombolysis (RO-STEMI register). The number of patients with primary PCI was 10 times higher in 2011 compared to 2007 (SD Kristensen et al Eur Heart J 2014 August 1 35 29 1957-1970). AMI mortality rate decreased significantly, from 13% to 7.55% (RO-STEMI register). The mortality rate was approximately 4.4% in patients admitted for primary PCI, 8.3% in patients receiving thrombolysis and 17.1% in those treated conservatively. (Kristensen SD et al Eur Heart J 2014 August 1 35 29 1957-1970).

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. 33.1% of the patients were brought to the ER directly by ambulance, 31.1% were transferred from other hospitals in Bucharest, 8.4% were transferred from hospitals at a distance <50 km, 10.2 % from a distance <100 km, 4.9% <150 km, 4.7% <200 km and 7.6% > 200 km. The average time from the onset of pain until calling to the emergency medical system was 3 hours, with a median of 2.5 ore. Only 21% of patients called the emergency medical system within 60min from the onset of chest pain. The time from first medical contact to balloon inflation was less than 90 min in 29% of patients.

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. 43.6% of patients had single-vessel lesion, 38.1% had two-vessel lesions, 10.8% had three-vessel lesions/multivessel, 5.8% had non-obstructive coronary artery disease and 1.7% had permeable coronary arteries.

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 had not had symptoms of heart failure. 25% of patients showed signs of left heart failure and 3.5% of patient admitted in program died.

## Acute myocardial infarction without chest pain

**D. Negoiță, C.B. Teuşdea, L. Demiraş, Ana M. Demiraş**

Acute myocardial infarction (AMI) can present itself without chest pain. This happens more often in the elderly, diabetics and women. We present the case of an elderly male patient who came to the ER with abdominal discomfort after an episode of faintishness. Careful history taking, physical examination, ECG (without STEMI criteria) and blood tests helped to establish the diagnosis. With this case we want to emphasize that a high index of suspicion for AMI is necessary in the elderly. Proper ECG interpretation of subtle ST changes is also mandatory.

## Difficulties in diagnosis and treatment between STEMI and myocarditis

**Alice Munteanu, L. Chiriac, R. Roșulescu, Irina Florescu, Cristina Calcan**

A national program called RO-STEMI started in Romania in 2010 in 12 centers organized in a 24/7 system in five regional

networks. Our hospital is part of this program for 6 years, under which we receive patients with criteria of STEMI for interventional myocardial revascularization.

We present a 59 years old female, hypertensive, obese (BMI 32,3kg/m$^2$), non-smoker, accusing the first episode of typical chest pain, started 2 hours before the presentation in ER. The diagnosis of STEMI was supported by electrical, biological and echocardiographic criteria. The drug therapy was initiated according to guidelines with double antiplatelet therapy, heparin and morphine. Emergency coronary angiography was performed distinguishing permeable epicardial coronary arteries.

We had to decide if it was STEMI with permeable coronary arteries or myocarditis. For a certain diagnosis she needed a cardiac MRI as soon as possible. In the meantime we had to decide the right treatment for this patient. Considering that we couldn`t exclude the diagnosis of STEMI we decided to continue the specific treatment for myocardial infarction – notice that this diagnosis has a worse prognosis vs. myocarditis.

After 3 months the patient was asymptomatic, ECG was normal, echocardiography showed normal systolic function, without parietal kinetic disorder. Cardiac MRI sustains the diagnosis of STEMI, so the patient continues the previous medication.

In conclusion, we had a patient with cardiovascular risk factors, with all criteria for STEMI but without coronary lesions. The differential diagnosis was challenging, but the decision of treating like a STEMI was right, this having the worst prognosis.

## Cardiac investigation of the young patient with stroke

**A. Anghel, S. Stanciu, Ioana Răduță, L. Ciobîcă, Lorena F. Davidescu**

Stroke in the third cause of mortality and morbidity all over the world, but the number in the young patients is low but with major impact on the invalidity.

The strokes in young are ischemic and hemorrhagic

Most of the strokes in young patients are produced by cardiovascular pathologies, many of them unknown at the moment of the diagnosis.

Causes of strokes in young patients are:

1. Cardio embolic
   a. cardiac malformations (DSA, DSV)
   b. arrhythmias (atrial fibrillation, atrial flutter)
   c. endocarditis
   d. cardiac tumors
2. Atherosclerotic
   a. familiar dyslipidemia
   b. vasculitis
3. Hemorrhagic stroke
   a. hypertension (secondary?)
   b. vascular malformation

Cardiac investigation of the young patient with stroke must be complete including morphological exploration (trans-thoracic, trans-esophageal ultrasound, arterial or venous Doppler ultrasound), monitoring (ECG and TA monitoring) and, if necessary advanced imagistic methods (angio TC, angio MRI).

Because of the importance of the disease and the age of the patient the cardiac investigation is mandatory in the diagnosis but also in secondary and primary prevention.

## Multiple etiology of deep venous thrombosis

**L. Chiriac, R. Roşulescu, Alice Munteanu, S. Dumitrescu, Adriana Gârjău, Magda Gurzun**

We would like to report a case of a male patient of 43 years old who was admitted at the emergency room of the Emergency Military Hospital in Bucharest accusing severe localized pains on the right tie which was swollen and presented all the acute inflammatory characteristics.

The clinical exam revealed severe unilateral edema in the right inferior limb associated with extreme pain and functional impairment. The cardiovascular and respiratory function of the patient were stable. Also hemodynamics wasn't affected.

The ECG was without anomalies.

The suspicioned diagnostic was profound venous thrombosis of the right inferior limb and confirmed by performing a venous compression ultrasonography and a Doppler exam.

To refine the etiology of the thrombosis the patient has performed a thoracic-abdominal CT scan native first which revealed no other morphological anomalies but a left retropsoic solid mass.

The thoracic-abdominal CT scan with intravenous and oral contrast revealed the absence of the inferior vena cava and identified the existence of a hypertrophic azygos and hemiazygos veins. The retropsoic solid mass was confirmed as a hypertrophy of the paravertebral venouse plexis anomalies which would indicate a compensatory morphological and functional adjustment to the congenital

agenesia of the inferior vena cava.

The patient received anticoagulant therapy represented by high molecular mass heparin having an interval between 50 – 70 seconds as target APTT.

From this case is important to draw the conclusion that it may be important to think at the possibility of an anti-phospholipidic syndrome even in patients who have morphological congenital anomalies of the vascular system and proceed with the specific tests that will confirm or rule out this syndrome.

## Is it a place for cardiac MRI in acute clinical settings

**Maria Gurzun, Lavinia Florea, Raluca Popescu, G. Neagoe, Ana-Maria Cincă, R. Boiangiu, Ileana Hanțulie, Smărăndița Lacău, S. Dumitrescu**

Multimodality imaging became mandatory in cardiac patient management nowadays. Among new imagining modalities cardiac MRI became very important during the last years. However, the long-time necessary for examination, the low availability and the high price make it a method less used in acute settings.

The purpose of this communication is to present a short case series for emphasis the utility of cardiac MRI in patient management during the acute phase.

The reported patients were admitted in cardiac care unit for chest pain, shortness of breath with EKG changes and elevated troponin levels. The two patients were angiographically explored and the coronary artery disease was excluded. The cardiac MRI performed during the first three days excluded the myocarditis for the first patient and confirm it for the second one. The second patient received conservative treatment, having a good recovery. During the hospitalization the first patient presented several hypertensive crises and pheochromocytoma was suspected and confirmed by bioumoral markers and abdominal computer tomography.

Therefore, cardiac MRI was essential in patients' management: in the first case excluded myocarditis and suggest another pathology involved, permitting the establishing of correct diagnosis; in the second case myocarditis was confirmed and the patient received the correct treatment.

To conclude cardiac MRI can be a useful tool for cardiac patient management even in acute clinical settings.

## TILT table test

**V. Iliește, R. Bolohan**

Head-up tilt table test is used for the evaluation of the syncope, it starts to be used by Kenny and colleagues in 1986 like passive head-up posture.

The tilt testing is used for the evaluation of the reflex syncope and to discriminate between reflex, orthostatic hypotension syncope and jerking movement from epilepsy.

Preparation before the test, patients must be secured, should have a venous access, should fast 2-3 hours, they may continue their usual medication such as diuretics and antihypertensive. Beta-blockers and other medications for the treatment of syncope must be stopped at least 5 times half-life. The pre-test phase usually takes 5-20 minutes. After that the patient is put to 60-80 degrees; this is the passive phase of a minimum 20 minutes maximum 45 minutes, while the blood pressure and the heart rate is monitored from 5 to 5 minutes and from 1 min in case of symptomatology occurrence.

The pharmacologic provocation uses nitroglycerine and isoproterenol.

The response to tilt test is classified in type 1: mixed in which the heart rate and blood pressure decreases without asystole of <3 second; type 2 – cardio inhibitory 2A – without asystole an 2B – with asystole >3 seconds blood pressure decrease coincides with or occurs before the heart rate decrease; type 3: vasodepressor.

This year, in the first 6 months we performed 12 tests, out of which 3 were carotid sinus syndrome with asystole >3 seconds, 4 were with a mixed response, 5 were negative.

In 2014 we had a case of a 31 years old women, without any cardiovascular pathology, who followed medication for the epilepsy 1 month, she did not feel well, TILT test was positive, type 2B cardio inhibitory with a pause of 30 seconds, and as a consequence we implanted a permanent pacemaker.

## Cardiac permanent pacing

**V. Iliește, I. Țintoiu, R. Bolohan, D. Niță, D. Săvoiu, D. Cîrpaciu, L. Chiriac, Adriana Gîrjău, Andreea Teodorescu, Simona Almarichi, Alice Munteanu, L. Demiraș, Ana Demiraș, R. Roșulescu, G. Neagoe, S. Dumitrescu, Magdalena Gurzun, Ileana Hănțulie**

Cardiac permanent pacing is an option for treatment of slow usually symptomatic rhythm. The recommendations for

permanent cardiac pacing are well detailed in the ESC Guidelines on cardiac and cardiac resynchronization therapy 2013.

As of the beginning of 2016 we implanted 180 VVI; 56 DDD; we use the access from the left side usually horizontal cut. We always try to use the cephalic vein; other options can be the subclavian, axillary, jugular vein; the leads can be with active and passive fixation.

The leads are placed under radiologic guidance; for each lead we have to measure the threshold; wave amplitude; impedance; slew rate.

We use the active leads for the ventricular usually in the septum and the right appendage; the passive leads are used in old patient with low physical activity.

We choose the programming parameters according to patient pathology.

The ECG is the most useful method for the follow up.

The most common complication that we met is the local hematoma that usually doesn't need an intervention. For the lead dislodgment we had 4 cases.

## Cardiac resynchronization therapy

**I. Țintoiu, R. Bolohan, L. Chiriac, G. Neagoe, S. Dumitrescu, D. Niță, V. Ilieșe, Magdalena Gurzun, E. Pandea, L. Demiraș, D. Săvoiu, S. Cîrpaciu, Alice Munteanu, Andreea Teodorescu, R. Roșulescu, Adriana Gîrjeu, Simona Amarichi, Ana Demiraș, Ileana Hănțulie**

Cardiac resynchronization therapy is an electrical therapy option for patients with heart failure with reduced ejection fraction (FE<35%) and a wide QRS duration (LBB>130ms & non-LBB >150ms), also in patients with reduced ejection fraction who need permanent right ventricular pacing (ESC Guideline: "Heart Failure 2016")

Response to cardiac resynchronization therapy is about to 60-70 % the non-responders are patient with ischemic cardiomyopathy and those with non-LBB:

Approach for the cardiac resynchronization: therapy can be done on the left or right side via subclavian incision. This is the most common procedure. For the venous axes we always use the subclavian vein with two punctures and one puncture we use for coronary sinus lead.

The most difficult part is usually the cannulation of the coronary sinus. There are two methods: the electrophysiological approach and the hemodynamic approach.

The electrophysiological approach uses the EP catheter suitable for the coronary sinus. The cannulation is done in the LAO $30^{o}$ projection. Once the EP catheter is in the coronary sinus the guiding sheath is advanced in the coronary sinus and after that we do the venography of CS.

The hemodynamic approach can use the guiding sheath or the left Amplatz 2 catheter.

The CS lead can be unipolar, bipolar or quadripolar lead. The quadripolar lead allow us to do multisite pacing.

We have 8 cases of cardiac resynchronization: 4 were ischemic and 4 non ischemic; the patients also met the echocardiographic criteria for the atrio-ventricular, inter-intraventricular dys-synchrony; 1 was non responder he was an ischemic non–LBBB; 5 was responders with improvement of the clinical and echocardiographic parameters.

The principal tool that we use for programing CRT is the ECG. It can show you the site of pacing, the location of the lead and the fusion proportion.

For future we ca ensure more CRTs provided that we have the necessary equipment.

## Inflammation, periodontal disease and subclinical vascular injury

**S. Dumitrescu, L. Chiriac, Maria M. Gurzun, Ileana Hănțulie, R. Boingiu, S. Stanciu, D. Săvoiu, Raluca Popescu, H. Barbu**

Introduction: There is a unanimously accepted connection between inflammation and periodontal disease (PD) and between hs-CRP levels and atherosclerosis, nevertheless there are few studies connecting all three.

Objective: We planned to investigate the relationship between inflammation, subclinical vascular disease and the periodontal disease (PD) status.

Methods: We evaluated 190 individuals in the course of a cardiovascular primary prevention program. Risk factors data were collected using an individual assessment sheet and through measurement of laboratory parameters (hs-CRP, lipid profile, blood glucose) in a period of +/- 3 days from the baseline clinical and echo evaluation. Vascular ultrasound data was collected on examinations made in the same day: brachial artery flow mediated dilatation (FMD) and carotid artery intima media thickness (IMT). Data on PD status were collected through a clinical exam performed in a period of +/- 7 days from the baseline evaluation and categorized the study group in a subgroup of normal periodontal status (NPS= 69 persons; 36,3%) and periodontal disease subgroup (PD= 121persons; 63,7%) which was further divided into a gingivitis subgroup (G=95 persons;

50%), mild to moderate periodontal disease subgroup (PM=19 persons; 10%) and severe periodontal disease subgroup (PS=7 persons; 3,7%).

Results: After data collection we compared the mean values for hs-CRP and vascular ultrasound measurements according to PD status. The persons with periodontal disease have an increased level of inflammation and vascular dysfunction (p<0,001). Accordingly, there is a significant correlation between hs-CRP level and both FMD (r=-0,785, p<0,001) and IMT (r=0,360, p<0,001). Subclinical vascular disease is widespread in subjects with abnormal PD status and inflammation (hs-CRP >1 mg/dl), 111 (92%) persons out of 121 having at least one type of subclinical injury. We calculated concordance coefficient for group classification based on inflammatory status (low risk: hs-CRP< 1mg/dl, moderate risk: hs-CRP =1 – 3 mg/dl and high risk: hs-CRP>3 mg/dl) compared with classification based on PD status and we found Kappa=0.715, (95%CI = 0.632-0.799; high concordance).

Conclusions: Our study confirms the connection between inflammation and periodontal disease and links both of them with evidence of subclinical vascular injury.

# OP session MD9

## Soft palate paralysis – a misleading onset of invasive mucormycosis involving nasopharynx and paranasal sinuses

**V. Gheorghiță, R. Hainăroșie, R. Vasilescu, Eliza Grămadă, C. Socoliuc, Mona Popoiu, I. Ștefan, F.A. Căruntu**

Introduction: Mucormycosis (MCM) is a life-threatening invasive fungal infection caused by fungi belonging to the Mucorales order. Despite aggressive therapy, the overall mortality rate remains unacceptably high (around 50%).

Material and methods: A 56-years-old diabetic male patient was referred to the "Matei Bals" National Institute for Infectious Diseases on August 7th, 2014 with suspicion of nasopharyngeal (N-Ph) MCM. The disease had been started 8 days before with severe odyno-dysphagia, regurgitation of liquids through the nose, right ear pains and headaches without fever. Laboratory analysis found hyperleukocytosis (21,651/mm$^3$), inflammatory biological syndrome (CRP 269 mg/L) and hyperglycemia (448 mg/dL). ENT check-up revealed an intense erythema of the posterior pharyngeal wall with a slight bleeding in the cavum and the right nasal fossa. The symptoms have improved under antibiotics (Ceftriaxone + Metronidazole + Levofloxacin), antifungals – Fluconazole and steroids treatment. In 6 days the initial lesions progress to the black necrotic eschar. The tissue biopsy was performed. Cerebral and facial CT scan showed maxillary, ethmoidal and sphenoidal right sinusitis, without brain lesions. We started treatment with combination of lipid formulation of amphotericin B (AMB 5 mg/kg/day) and posaconazole (POS-oral suspension, 800 mg/day) for 13 days, followed by POS monotherapy. Glycemic control was achieved with insulin therapy. Histopathological exam and culture confirmed MCM. Mucor was identified as Rhizopus oryzae by molecular methods. Resection of necrotic tissue was delayed until the 18th day of antifungal treatment.

Conclusion and discussions: In the high risk group of patients this clinical onset (with soft palate palsy) could be indicative for MCM. The early diagnosis was clearly associated with favorable outcome.

## Thyroid dysfunction in sepsis in a prospective study

**V. Gheorghiță, Alina E. Barbu, Monica L. Gheorghiu, I. Ștefan, A. Streinu-Cercel, Ruxandra Moroti, F.A. Căruntu**

Introduction: The objective of our study was to evaluate the thyroid function during sepsis in order to identify a possible correlation with severity and final outcome of sepsis in a prospective on-going study.

Material and methods: A prospective, non-interventional cohort study was conducted in Matei Bals National Institute for Infectious Diseases between January and June 2015. Inclusion criteria included sepsis caused by bacterial infection in HIV negative adult patients who signed informed consent. Apart from demographics, clinical and microbiological data we measured serum thyroid hormones (TSH and fT4) and procalcitonin (PCT) at four different times: T0-admission, T1-24 hours, T2-72 hours and T3-7th day.

Results: 27 patients met the inclusion criteria. The median age was 67 years, (IQR, 57-78) and 55.5% (n=15) were male. 40.7% (n=11) of patients had severe sepsis and 18.5% (n=5) septic shock. The median value of PCT at diagnosis was 48.8 ng/mL, (IQR, 10.7-88.04). In 48.1% (n=13) of patients the

etiology was established. The gram negative bacilli were identified in 84.6% (n=11) of cases. Thyroid dysfunction was present in 29.6% (n=8) of patients, 62.5% (n=5) having hypothyroidism. The median value of TSH in patients with hypothyroidism was 5.134 UI/mL, (IQR, 4.224-6.137). 75% (n=6) of patients with thyroid dysfunction had more severe disease at baseline. The mortality was 37.5% (n=3) in patients with thyroid dysfunction compared to 18.5% (n=5) in the whole cohort, p=0.32.

Conclusion: Thyroid dysfunction was diagnosed in about quarter of patients with sepsis and seems to correlate with the severity of sepsis and poor prognosis.

## Psychiatry and terrorism

**C. Cândea, D. Vasile, O. Vasiliu, B. Petrescu, A. Mangalagiu, Irina Cândea, A.M. Badic**

Terrorism has dominated the domestic and international landscape since 9/11. Like other fields, psychiatry was not well prepared. It is time to consider what can be done to prepare before the next event. Much has been learned to provide knowledge and resources. The roles of psychiatrists are challenged by what is known of the causes of, consequences of, and responses to terrorism. Reflecting on knowledge from before and since 9/11 introduces concepts, how individuals become terrorists, how to evaluate the psychiatric and behavioral effects of terrorism, and how to expand treatments, behavioral health interventions, public policy initiatives, and other responses for its victims. New research, clinical approaches, and policy perspectives inform strategies to reduce fear and cope with the aftermath. This article identifies the psychiatric training, skills and services, and ethical considerations necessary to prevent or reduce terrorism and its tragic consequences and to enhance resilience.

## Transcultural psychiatry

**C. Cândea, D. Vasile, O. Vasiliu, B. Petrescu, A. Mangalagiu, Irina Cândea, A.M. Badic**

This article deals with the main concepts of Transcultural Psychiatry and their applications to everyday psychiatric practice. Transcultural psychiatry has undergone a conceptual reformulation in the last two decades. Having started with a comparative approach, which focused on the diverse manifestations of mental disorders among different societies, it broadened its scope, aiming at present to incorporate social and cultural aspects of illness into the clinical framework. Therefore, transcultural psychiatry now focuses more on what is called the illness experience than on the disease process, the latter understood as illness as it is viewed by health practitioners. Western medicine, of which psychiatry is a part, is grounded in positivist epistemological principles that stress the biological processes of disease. The intention of the paper is to develop an interest in alternative but also complementary ways of thinking. Modern transcultural psychiatry interprets some epidemiological and clinical aspects of major mental disorders (such as schizophrenia and depression) in a different light. However, it also distances itself from the absolute relativism of antipsychiatry, centering on clinical facts and helping clinicians in their primary task of alleviating suffering. An important contribution in addressing this task is the formulation of a cultural axis within the DSM model of multiaxial evaluation. A clinical vignette of a cultural formulation applied to a clinical discussion of a case is described.

## Expeditionary modular systems for sampling, detection and identification of CBRN agents

**V. Ordeanu, I. Savu, A. Vladimirescu, Lucia E. Ionescu, Victoria G. Dumitrescu, Diana M. Popescu, Nicoleta S. Bicheru, M. Necşulescu, A.G. Corlan, M.S. Tudosie**

The research, development and implementation of a modular expeditionary systems for sampling, detection and identification of CBRN agents, that is useful for providing information about the potential CBRN contamination, will ensure the samples necessary to perform the identification and confirmation testing's in specialized fixed and mobile laboratories with additional protection of the operators.

The novelty of the project proposal consists in designing and developing an integrated expeditionary systems, that can be transported by land, air, sea etc. and which will be provided with a remote drones for recognition of high risk areas and sampling.

Implementation of projects will follow defining the composition of the expeditionary modular system, depending on the missions of the mobile intervention teams, establish methods of sampling and integrating executed modules, making the decontamination devices of the remote drones and of the foldable mini-aerodrome, integration of the components and execution of an experimental model of the expeditionary modular systems, testing the modules under laboratory conditions in order to verify their correct functionality within the system, testing

the experimental functional model on the site. The partners have experience in making kits and sampling kits for transport and testing of agents, explosives etc. The system does not exist in the manufacturing or marketing phase, in the proposed configuration.

The transfer for industry of the scientific and technological results is provided by industrial partner's capabilities, which has experience in the production of CBRN defense equipment, as a developer and supplier for beneficiaries of the national security system.

## A rare case of hypokalemia – case report

**V. Smedescu, Roxana Diaconu, Denise A. Mardale, Cristina Spiroiu, E. Firoiu, Anca Manolache, Mihaela Enache, I. Copaci, C. Jurcuț**

We report the case of a 57-year-old woman, who is hospitalized for abdominal pain and jaundice with a one month onset.

The clinical exam further revealed hepatomegaly, dark urine and pale stools. Laboratory exams showed neutrophilic leukocytosis, hepatic cytolysis, cholestasis syndrome and severe hypokalemia.

The upper and lower gastrointestinal endoscopies were within normal parameters, while the chest and abdominal computed tomography showed a left lower lobe pulmonary tumor, multiple mediastinal and abdominal adenopathy and also liver and bone metastasis.

The pulmonary tumor was biopsied and small cell lung cancer was diagnosed. Despite treatment with oral and intravenous potassium salts the hypokalemia persisted, while the patient subsequently accused abdominal cramps and loose stools.

We did further tests which showed high serum levels for cortisol, chromogranin A and serotonin and also high urinary values for 5-HIIA, thus confirming the presence of two paraneoplastic syndromes: secondary Cushing syndrome and carcinoid syndrome.

The particularity of the case is represented by the rare association of these two paraneoplastic syndromes in this type of neoplasia and the discordance between the high hormonal values and the presence of minimal specific symptoms.

## An unusual case of palpebral swelling and erythema

**V. Smedescu, Oana Stancu, Anca Manolache, D. Chiriță, I. Copaci, C. Jurcuț**

We report the case of a 47-year-old woman who presents with fever, left palpebral and zygomatic swelling and erythema, cervical adenopathy, hepatosplenomegaly and erythema nodosum on the right arm. The patient was treated with broad spectrum antibiotics without any improvement.

The laboratory exams showed an inflammatory syndrome, moderate anemia, thrombocytopenia, lymphopenia and mildly elevated aminotransferase levels. The tests for infectious diseases and tumoral markers were normal, while the screening for SLE, Sjogren syndrome and vasculitis was negative. The cerebral and cervical MRI revealed left lacrimal gland and periorbital subcutaneous fat inflammatory infiltrates. The thoracic and abdominal computed tomography showed hepatosplenomegaly and multiple mediastinal and intraabdominal adenopathy. The bone marrow examination was normal, while the pathological exams of an excised lymph node supported the diagnosis of reactive adenitis. A skin biopsy was performed which established the diagnosis of lupus erythematosus tumidus (LET). The symptoms were considerably improved after systemic course of glucocorticoids without recurrence at one year of follow-up. LET is a rare form of cutaneous lupus erythematosus, recently being redefined as an independent entity.

The particularity of this case is the association of LET with several systemic manifestations, however without enough criteria to support the diagnosis of systemic lupus erythematosus.

# OP session MD10

## Metformin effects on endometrial hyperplasia in women of reproductive age with PCOS

**A. Ranetti, Anca Pati-Cucu**

Background: Polycystic ovarian syndrome (PCOS) a 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. Endometrial hyperplasia occurs in 1 to 48% of women with PCOS and can progress to endometrial cancer.

Material and method: 20 non-diabetic women between 25-35 years old, with PCOS untreated prior to presentation, with a BMI>30 kg/m$^2$, were included in a pilot study. Endometrial hyperplasia was defined as endometrial thickness more than 15 mm in the secretory phase. Endometrial biopsy in all women showed a simple hyperplasia without atypia. 10 women choose progestin-only treatment 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. We also reviewed metformin influence on reproductive function with emphasis on endometrial effects.

Results: The Met-group had a significant weight reduction and a decreased endometrial thickness compared to non-Met and also ovulation occurred faster in Met-group.

Conclusions: Metformin, a biguanide used in treatment of type II diabetes mellitus, could be used single or in association with oral contraceptives or progestins in non-diabetic patients with EH. Still, further studies including larger cohorts of patients are needed.

## The role of computed tomography (CT) in the evaluation of acute abdominal pain in patients without trauma

**C. Sandu, Mihaela Gheorghiu, Cristina Sandu, Diana Soloman Năftănăilă, F. Năftănăilă**

Non-traumatic abdominal pathology is one of the most common reasons for admission to the emergency department. Accurate and rapid diagnosis of these conditions helps in reducing related complications. Clinical assessment is often difficult due to availability of over-the-counter analgesics and self-medication practice, leading to less specific physical findings.

Laboratory and conventional radiographic findings are in many cases unhelpful. Thus, cross-sectional imaging plays a crucial role for initial evaluation and management of acute abdomen. Multidetector computed tomography is the primary imaging modality used for these cases due to fast image acquisition. There is no evidence of using one single strategy tool. The clinician may choose either routine ultrasound (US) evaluation complemented by CT in case the US is inconclusive or first-choice CT.

The usual causes of non-traumatic acute abdomen are bowel obstruction, acute pancreatitis, gastrointestinal perforation, diverticulitis, appendicitis, and cholecystitis. Less frequent, but also important causes are ruptured abdominal aneurysm, spontaneous abdominal bleeding due uncontrolled anticoagulant therapy, acute mesenteric ischemia or mesenteric venous thrombosis.

## The role of ultrasound guided trans-bronchial puncture in diagnosis of lung cancer

**Ioana Ștefănescu, E. Firoiu, Ioana Oprea, Florentina Vasilescu, Chim Aneta Șerbescu**

Introduction: Endobronchial ultrasound (EBUS) is a minimally invasive but highly effective procedure used to diagnose lung cancer and other diseases causing enlarged lymph nodes in the chest. Although the method appeared in the late 90s, emerged in Romania for several years, initially in Iasi, after that in Cluj-Napoca. The Military Hospital is the first hospital in Bucharest that brought this technique in December 2015.

Materials and methods: We conducted a study in the Department of Pneumology of SUUMC on the patients with radiologic suspicion of pulmonary cancer, investigated between December 2015 - June 2016 by EBUS-TBNA, with moderate sedation (Midazolam and Propofol).

Results: All the patients were imagistic diagnosed with pulmonary tumors and mediastinal lymph nodes. The majority of patients with diagnostic imaging of lung tumors were confirmed by EBUS-TBNA both cytology and histopathology (cell block).

Conclusions: EBUS-TBNA is a minimally invasive method, with small risk, highly effective in the diagnosis and staging of lung cancer. This method could replace in some cases

mediastinoscopy as a method of diagnosis of lung cancer, especially in patients with severe comorbidities. This technique can be improved by using thicker needles, although procedural risks may grow.

## Multiple trauma diagnosis and treatment algorithm in ED

**B. Teușdea, M. Toma, S. Dogaru**

Trauma is in Romania a problem of public health, and it has the highest mortality in the population with ages between 15 and 44 years. Multiple trauma (MT) represents an acute severe status appeared after a mechanic, thermal, chemical or electrical impact, status characterized by multiple lesions at organ and body systems. Lesions that affect more than one organ are characteristic and are frequently fatal, in patients suffering from MT under different disasters /war, therefore this kind of patient needs a prioritization of the lesions, in order to treat them, and he represents a challenge for the trauma team.

The traumatized patient has an unpredictable evolution because it synthesizes multiple traumatic sites, with an immediate and delayed reaction, having a great potential for developing MSOF (syndrome of multiple organ failure). This type of patient develops shock of various origins with high severity. That's why a well-organized chain of medical aid increases the survival of patients with multiple trauma and decreases mortality and morbidity.

Emergency physicians play a vital role in the stabilization, diagnostic and initial treatment of MT patient at ED level. MT patients' management implies complex, time-dependent, decision–making, leadership capability and technical skill. Therefore at ED level we need instruments - algorithms that facilitate the diagnosis and treatment of MT patients. In this paper we present the algorithm for the diagnosis and treatment of MT patient because we consider that an algorithm, using ATLS principles, is necessary to guide management of this type of patients.

## Our experience with point of care testing analysis in the Emergency Department

**B. Teușdea, M. Toma, S. Dogaru, Luminița Popa**

For emergency medicine, about 70% of the decisions, made by the physicians working in the ED and the physicians on duty, regarding admission, discharge and medication are based on lab results. In the last few years, Point of care testing (POCT) in the Emergency Department (ED) is becoming a lot more common.

POCT instruments are used every day in our ED for biomarkers determination, such as cardiac biomarkers (CK-MB, troponine I, NTproBNP etc.), sepsis biomarkers (presepsin), blood gas analysis (PaO2, PaCO2, pH etc.) and also for blood tests – blood cell count, biochemistry and urine tests (toxicology).

We made a comparison between the blood test results obtained on POCT instruments (biochemistry) and the blood tests obtained in the Central Laboratory of the hospital. The final result was a little difference between the 2 lab tests, but with no statistically significance.

## The urosepsis

**Ioana Oprea, Denisa Ghinescu, B. Petre, O. Bratu, D. Corneci, Mirela Bidilică, L. Ene**

Sepsis is a life-threatening problem that leads to increase the mortality, morbidity and costs of healthcare services. In spite of huge efforts up to now, have no reached to safe therapy with reproducible effects systematically.

Within sepsis, interleukins, cytokines and other factors of inflammation reach to significant serum concentration and affect all organs and body systems, getting to acute dysfunctions and shortfall of these. According to Surviving Sepsis Campaign 2012, sepsis is defined as documented or suspected infection, accompanied by various laboratory or clinical variables. Due to major implications arose in the context of the diagnosis and complex therapeutic approach of affected patients, worldwide appear new ideas, concepts and assumptions with frequent updates in order to optimize the septic patient approach with or without associated organ dysfunction.

Medical approach must be multidisciplinary one, targeted both on the treatment of the cause (initial infection), but also to maintain internal homeostasis simultaneously with decreasing the damage of other organs and systems.

When the starting point of sepsis is an infection within the urinary tract, it is called urosepsis. This could be life-threatening, if emergency treatment is not carried out. Statistically, urosepsis accounts for approximately 25% of all cases of sepsis.

The urosepsis remains a challenge for the urologist, intensive care doctor, radiologist and microbiologist. It is very important to have a good cooperation between these specialties and teamwork.

## Threat of Burnout Syndrome in the Emergency Department – our experience

**B. Teușdea, M. Sălceanu**

Burnout Syndrome is defined as a psychological syndrome that occurs among the employees who work in a stressful environment and as a result of an imbalance between expectations and resources. This syndrome is more than an extreme fatigue and involves emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment with a secondary disengagement that occurred among different professionals who work with other people in challenging situations.

Through this paper we hope to raise awareness about this danger and we try to identify how this syndrome affects our staff in Emergency Department at Central Emergency Military University Hospital "Carol Davila" Bucharest.

For this purpose we use a new instrument called "The Oldenburg Burnout Inventory" (OLBI), applied to all our staff members, that includes positively and negatively statements to assess the two core dimensions of burnout: exhaustion and disengagement (from work). We found interesting data and correlations in matter of age, gender and level of qualifications.

Moreover we suggest methods of prevention and treatment in order to increase the quality of life and satisfaction both for employees, employer and the beneficiaries of the medical services that we offer.

## Percutaneous tracheostomy – the experience in SUUMC ICU

**Ș. Zahiu, L. Ene, Mirela Bidilică**

Percutaneous dilatational tracheostomy (PDT) is a minimally invasive, rapid, bedside technique, elective procedure used in Critical Care services to create a stoma between skin and trachea. Its popularity has partly been due to the procedure being more readily available with less restraints from theatre availability, accessing surgeons, cost and time involved in coordinating patient transfer compared to a standard surgical tracheostomy (SST).

The main indications are: 1. Mechanical obstruction of the upper airways, 2. Protection of tracheobronchial tree in patients at risk of aspiration, 3. Respiratory failure, 4. Retention of bronchial secretions, 5. Elective tracheostomy.

Modern PDT was described in 1955 and in 1969. The dilating tracheostomy forceps were developed in 1989 and further by Griggs in 1990 who introduced the use of a guidewire. The most commonly used PDT kits are available from Cook Critical Care and Sims Portex.

In ICU/SUUMC we began the use of PDT in 2015 and up to August 2016 we performed 23 such procedures. The kits we used are Portex percutaneous tracheostomy with a special forceps that allows the passage of a guiding wire. Bedside bronchoscopy performed by pneumologists was mandatory pre-procedural during procedure and as a control after having performed the operation. There was one case when Ear-Nose-Throat specialist had to perform hemostasis 4 hours after tracheostomy.

PDT is a reliable procedure in ICU, performed by ICU physician, ICU nurse and pneumologist.

## The post-streptococccal syndromes as border pathology – an infectious diseases practitioner point of view

**B. Cîrciumaru**

Background: The post-streptococcal syndromes are the sequelae of the streptococcal infections that frequently occur during childhood. They are borderline pathology within internal medicine specialties (including the infectious diseases) and a quite common condition for our country, thus organizing the clinical forms and therapeutically approaches becomes a necessity.

Materials and methods: I retrospectively studied, the post-streptococcal syndromes admitted into the Army`s Infectious Diseases Ward, within the last 10 years. Most of the patients were monitored twice yearly, and treated, sometimes, medical and surgical (e.g. for endocarditis). In order to have a consistent view of the problem, I had discussions with different specialists, including family doctors.

Results: I described the forms of the streptococcal infections (self-limiting) as well as the post-streptococcal syndromes (monophasic and multi-recurential) and I determined reasonable therapeutically conducts for the antibiotic treatment and the prophylaxis.

Conclusions: The antibiotic treatment is essential in order to eradicate the remnant infectious focuses: as using two doses of Benzathinpenicillin G every 5-7 days, and every 10-14 days for the secondary prophylaxis. The length of the secondary prophylaxis remains controversial, monitored by the clinical improvement, biological markers (e.g. the reduction of the inflammatory phenomena, the ASO dropping tendency) and other investigations. I presented my opinion regarding the

monitoring and the antibiotic therapy, as part of multi-disciplinary approach. I support the inclusion of the conclusions within the Hospital Guidelines.

### A complicated case report associated with rheumatoid arthritis

**L. Ciobîcă, Daniela Anghel, S. Stanciu, Raluca Lutuc, I. Sârbu, Ancuța Coca**

A 43 years old patient, diagnosed at age 16 with JIA and at 23 years with Hashimoto's autoimmune thyroiditis. Three years later she was diagnosed with seronegative RA, for which she followed the classical remission therapy without an effect. Beside the existing autoimmune pathologies, she added a type 1 insulin-necesitant diabetes, shortly complicated with retinopathy, mixed neuropathy and gastropathy.

Over the last 10 years appear recurrent episodes of iridocyclitis, the reason why we considered to initiate the biologic therapy with Etanercept, without final, due to a pulmonary tuberculosis diagnosed by tests according to the protocol. Subsequently the patient develop a secondary sicca syndrome, complicated with corneal ulcer paracentral wich became infected, for that we practiced the enucleation of OS (March 2015).

Consequently of the unbalanced diabetes (HgA1c = 17.6%), the patient developed an infected interdigital ulcer in the IV-V fingers foot, complicated with a shore perforating plantar right which became infected.

The patient showed a varied clinical picture, and the laboratory indicated a microcytic hypochromic anemia, a moderate inflammatory syndrome, a positive FR, ACPA = 103.3 IU/ML and not least a coproparazitologic exam - Positive for Clostridium difficile. At the ophthalmic reevaluations, the acute iridocyclitis was in a healing process, but with a complicated cataract and a proliferative diabetic retinopathy.

As a particularity of the case, a patient with mixed autoimmune pathologies, followed by a fulminant evolution which was therapeutic neglected. Recurrent episodes of iridocyclitis, infectious complicated, by an enucleation of the right eye.

## OP session MD11

### Sarcoidosis – challenging diagnosis

**L. Ciobîcă, I. Sîrbu, Ancuța Coca, Alexandra David**

Sarcoidosis affects people of all racial and ethnic groups and occurs at all ages, although it usually develops before the age of 50 years, with the incidence peaking at 20 to 39 years. The presentation in sarcoidosis varies with the extent and severity of organ involvement. Asymptomatic – incidentally detected on chest imaging ~ 5% of cases, systemic complaints: fever, anorexia ~ 45% of cases, pulmonary complaints: dyspnea on exertion, cough, chest pain ~ 50% of cases; Löfgren syndrome (fever, bilateral hilar lymphadenopathy, and polyarthralgias): common in Scandinavian patients, but uncommon in African-American and Japanese patients.

We are presenting 3 types of clinical presentation of sarcoidosis with rare onset of the diseases. They were in the age incidence peaking, one of them had unilateral ankle swelling, the other one had a single erythema nodosum and the last one had been diagnosed with pulmonary carcinomatosis.

After performing the investigations in our clinic all of them were diagnose with sarcoidosis.

### Catheter sepsis in patient with rituximab treatment for non-Hodgkin lymphoma

**C. Bănică, I. Ștefan, B. Cîrciumaru, S. Ionescu, O. Dunăreanu, I. Pandrea, O. Călina**

Introduction: Catheter-related bloodstream infections accounts for 5 to 20% of hospital-acquired infection. Frequently, catheter-sepsis is caused by multidrug-resistant micro-organisms: gram-positive cocci like S. aureus, Enterococcus or gram-negative bacilli – Pseudomonas aeruginosa, Acinetobacter baumanii, Enterobacter. In immune-depressed patients fungal or polymicrobial infection have been reported. These patients are also at risk for severe evolution.

Presentation: We present the case of a 62 years-old female

with non-Hodgkin lymphoma under treatment with Rituximab – the second therapeutic cycle. She got a port-a-cath device on her left subclavian vein. The patient was admitted in our department, after the Rituximab cycle, with high fever, chills, deterioration of the general status and she was diagnosed with catheter-related sepsis. Under large spectrum antibiotics the fever persisted. The patient recovered quickly only after the removal of the intravascular device. All the blood cultures were negative, although the catheter tip culture was positive for Enterococcus faecalis.

Conclusions: The use of central venous catheters is part of the modern practices in critically-ill patients. In neoplastic patients, with fragile peripheral veins, intravascular devices are useful for giving intravenous treatment, blood transfusions or taking blood tests, but they raise the risk for catheter-related infections. In these immune-depressed patients, multidrug-resistant bacteria or fungi can lead to severe sepsis and metastatic infectious complications.

## Methods of evaluation for cardiovascular continuum state in type 2 diabetes mellitus patients

**C. Constantin, Georgiana Constantin, A. Ranetti, C. Serafinceanu**

Introduction: During life time, a patient with type 2 diabetes mellitus (T2DM) could develop complications and an adapted tool should be used for evaluate the cardiovascular risk. There are some score risks present in clinical practice and each of them are developed using some characteristics of patient. This presentment will develop tools for evaluation cardiovascular risk in different situation of T2DM patient.

Material and method: This presentation summarizes the most important evaluation tools for cardiovascular risk in T2DM patients. A real trained practioner use the appropriate score and short and long therapeutic attitude should be adapted using the best medical guidelines. The case management implications and also the vital risks will be appropriate evaluated and presented during an acute event (stroke, acute coronary syndrome, acute peripheral artery obstruction etc.) and could demonstrate the best predictive value for prediction of long-term mortality and morbidity in T2DM patients.

Results: There is not a single and a general available score to evaluate and to be used during lifetime of a T2DM patient. A real and integrated score risk is – in fact – a proper score applied at a proper moment.

Discussions: This short presentation will try to clearly describe these tools and the best moment when that tool should be applied. A lot of actual tools are present in cardiovascular risk market, but a clearly used algorithm for application of these scores should be implemented.

## Fluid, gas, fibrosis, blood, calcifications and tumors in the retroperitoneal space. Imaging evaluation

**D. Cuzino, Oana Baston, C. Blaj, F. Năftănăilă**

Introduction: Retroperitoneal space is a challenging zone for imaging diagnosis. The lesions in this area can arise from the retroperitoneal organs but also from outside.

Material and method: We have revisited our cases in the last three years and we found diverse infectious, inflammatory, tumoral, traumatic and congenital lesions. All of these cases were explored first of all using CT. Some of these cases have been also explored using MRI for a better characterization of the lesion extension.

Conclusion: The complexity of the retroperitoneal lesions need anatomical and semiological analysis.

Imaging diagnosis also need to be interpreted in a strong correlation with the physio-pathological understanding of the region.

## Infections in rheumatologic disorders

**L. Ciobîcă, Daniela Opriș, Alexandra David**

Arthritis tuberculosis has its origins in hematological spread due to activating sites, in the first stage of the disease. Extra-pulmonary infection with Mycobacterium tuberculosis has musculoskeletal involvement in up to 19% of cases. The most involved joints are: the spine, hip and knee. There is no specific clinical manifestation. The symptoms vary from night sweats, cough, and weight loss, with or without joint manifestation: rubor, calor, dolor and in some rare cases evacuation of caseum from a joint fistula.

We report a case of a 79 old female patient who presented in the emergency department for polyarthralgia with onset of symptoms in the last 3 weeks. The right shoulder joint was tender, swollen and red, no fever at the moment nor in the last half of the year. There was no recent history of trauma, of respiratory, infective, or joint disease; because the pain was not improving after usually non steroid drugs she was given for the last 10 days dexamethasone 8 mg/day. She was also known with splenic lymphoma, interstitial pulmonary disease and cardiovascular pathology.

### Monitoring biological therapy – a continuous challenge

**L. Ciobîcă, Daniela Anghel, D. Stoicescu, Iolanda Sîrbu, A. Dumitru, S. Stanciu, Ioana Răduță, Ancuța Coca**

Biological therapy has revolutionized the treatment of rheumatic diseases in the past decade improving not only the heath of the patent but their quality of life.

However, monitoring the progressions of the disease and the possible side effects of the drugs can sometimes become a challenge.

We would like to bring to your attention the case of a 62 year old male with ankylosing spondylitis (HLAB 27+), type II diabetes and hypertension.

10 years after the onset of the disease he is started on etanercept and a few months later the patient presents with pain in the low back region.

The differential diagnosis in now important for excluding neoplastic lesions, tuberculous spondylodiscitis and bacterial spondylodiscitis and the Andersson lesion in ankylosing spondylitis.

The Andersson lesion is an inflammatory involvement of the intervertebral discs in spondyloarthritis. It is a non-infectious condition that occurs in about 8% of patients with ankylosing spondylitis.

## OP session MD12

### The Chicago classification and its contribution to high resolution esophageal manometry studying

**Florentina Ioniță Radu, Andrada Popescu, Maria M. Chereja, A.I. Gavrilă**

Introduction: This publication aims to summarize the state of our knowledge of the third Chicago classification criteria for esophageal motility disorders published by the International HRM Working Group, as well as the classification`s usefulness in clinical high resolution esophageal manometry studying.

Materials and methods: The primary objective of the Chicago classification (CC) is to categorize esophageal motility disorders in individuals with non-obstructive dysphagia and/or esophageal chest pain by applying standardized high resolution manometry (HRM) marks. The study is based on the standard HRM test in which the patient is asked to perform ten 5-ml swallows of water. On the color pressure topography plots that result, the software is able to define a set of parameters that are used in the classification and these are: contractile deceleration point (CDP), distal contractile integral (DCI), distal latency (DL) and integrated relaxation pressure (IRP).

The metrics obtained from the HRM study can be used to characterize individual test swallows (in terms of integrity of contraction, contraction pattern and intrabolus pressure pattern), but most important, they can define esophageal motility disorders and classify them in a) achalasia and EGJ (eso-gastric junction) outflow obstruction, b) major disorders of peristalsis and c) minor disorders of peristalsis.

Results and conclusion: The Chicago classification is a useful tool that can guide course of treatment in patients with esophageal motility disorders, despite the fact that metrics and criteria it uses can be hard to understand. It is an evolving process, with its third version incorporating recent advances in the understanding of esophageal motility pathology.

### The impact of bariatric surgery on upper gastrointestinal symptoms in obese patients – the role of esophageal manometry

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

Introduction: The role of this paper is to point out the importance of GI functional testing (especially esophageal manometry) before bariatric surgery, in order to reduce the prevalence of GERD symptoms, and the need for a medical protocol regarding this issue.

The literature data available reveals that the prevalence of GERD is higher in obese patients compared with normal weight controls, with an increased risk of 2.5 of developing symptoms and erosive esophagitis. This is most likely related to increased esophageal acid exposure. Several pathophysiological mechanisms may be involved: transient lower esophageal sphincter relaxation (TLESR), lower

esophageal sphincter (LES) pressure, altered esophageal motility, presence of hiatal hernia and esophageal factors such as poor esophageal clearance, altered gastroesophageal pressure gradient and delayed gastric emptying. In morbidly obese patients, some of these mechanisms may occur increasing the risk of developing severe GERD, but they can be established with esophageal manometry.

We know from other studies that the Roux-en-Y gastric bypass is considered an effective method to alleviate symptoms of GERD, whereas laparoscopic sleeve gastrectomy appeared to increase the incidence of the disease. Adjustable gastric banding was seen to initially improve the symptoms of GERD; however, a subset of patients experienced a new onset of GERD symptoms during long-term follow-up. Thus performing esophageal manometry and pH-metry before bariatric surgery can give important information and help in choosing the right type of surgical intervention, reducing the prevalence of upper GI tract symptoms.

Conclusion: Careful medical assessment is mandatory before performing any type of bariatric surgery in obese patients, especially for those who already have GERD.

## Update in the management of uncomplicated acute pancreatitis

**Cătălina Diaconu, Gaudia Avram-Mănescu, Laura Voicu, Florentina Ioniță-Radu, Mariana Jinga, D.O. Costache, Raluca S. Costache**

Acute pancreatitis represents the inflammation of the pancreas, inflammation that can be localized to the gland or it may extend to peripheral tissues or distant organ systems.

The treatment in acute pancreatitis is directly aimed at relief of symptoms. Fluid repletion, glucose repletion/nutrition and analgesia are the main pillars in managing acute pancreatitis. Studies show that early fluid resuscitation with 5-10 ml/kg/h is imperative in the first 12 to 24 hours. Moreover crystalloids are the first choice, rather than colloids. Ringer lactate was proven to have lower risk in developing systemic inflammatory response syndrome (SIRS) and might reduce the risk of metabolic acidosis and non-anion gap when compared to chloride-rich solutions (saline). The goals in fluid repletion are: to decrease of hematocrit and blood urea nitrogen and to maintain normal levels of creatinine. In patients with acute pancreatitis and cholangitis endoscopic retrograde cholangio-pancreatography (ERCP) is mandatory in the first 24 hours.

Antibiotherapy is not recommended as a routine treatment and should be reserved in infected pancreatic or extrapancreatic necrosis that fails to improve after 7-10 days of hospitalization and extrapancreatic infections (cholangitis, pneumonia, bacteriemia, cathether-acquired infection). In these cases carbapenems, quinolones and metronidazole are the treatment of choice. Antifungal agents are not recommended as prophylaxis.

Since severe abdominal pain is the main symptom, analgesia should be taken into consideration: opioids (fentanyl or hydromorphone). Enteral feeding is essential in acute pancreatitis, regardless the severity, once the symptoms subside. Even though most guidelines in the past recommended NPO (nothing by mouth) nowadays studies have shown that enteral nutrition is feasible and improves outcome and can be performed via nasogastric or nasojejunal tube and use low-fat semielemental formulas.

## Hereditary hemochromatosis: pathogenesis, diagnosis and treatment

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Hereditary hemochromatosis is an autosomal recessive genetic disorder often determined by mutations in the HFE gene (typical patients have inherited a C282Y mutation in the HFE gene from each parent) and less commonly by mutations in the genes for hemojuvelin, hepcidin and feroportin which implies abnormal accumulation of iron in parenchymal organs, leading to organ toxicity.

The classic description of the disease also called ”bronze diabetes” implies cirrhosis, diabetes mellitus and cutaneous hyperpigmentation. A recent study of C282Y homozygotes in Australia suggested that 28% of men and only 1% of women have iron related symptoms, influenced by age, sex, dietary iron intake, alcohol, blood loss in menstruation and pregnancy. Symptoms usually appear after the fourth decade of life or when the stores of iron are 15-40 g. Hemochromatosis has multiple manifestations, but the major consequence remains the development of hepatocellular carcinoma (HCC) which appears in one third of patients with hemochromatosis and cirrhosis. An ultrasonography should be made every 6 months in these patients to screen for HCC. For the diagnosis of this affliction clinical, laboratory, genetic testing and pathology criteria are needed. Laboratory tests reveal increased serum transferrin saturation, which is often elevated in patients with HFE-linked hemochromatosis, with a sensitivity over 90% and

increased serum ferritin level (but ferritin may also be elevated in various infections and inflammatory conditions). Liver biopsy is recommended in C282Y homozygotes patients or compound heterozygotes if liver enzymes are elevated or if ferritin is higher than 1000 µg/L. Response to phlebotomy may confirm the diagnosis and MRI can show moderate to severe iron overload.

It is recommended to initiate the treatment of hemochromatosis with phlebotomy (removal of 500 mL blood) before the development of cirrhosis and/or diabetes with an important reduction of morbidity and mortality. Phlebotomies should be done weekly/biweekly until serum ferritin reaches 50-100 µg/L, then 3-4 phlebotomies/year are recommended for maintenance.

## Hematologic abnormalities in cirrhotic patients, a challenging diagnosis: case report

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Introduction: Cirrhosis is responsible for various hematological abnormalities. Different mechanisms are implied such as hypersplenism, hemolysis, altered synthesis of clotting factors and trombopoietin, nutritional deficiency of folate, B12, B6 and iron, variceal bleeding or drug induced bone marrow toxicity.

Identifying the real cause require a careful approach and must take into consideration other severe hematological diseases.

Materials and methods: We present the case of a 69 year old man with Child C cirrhosis secondary to VHC infection who developed progressive leucopenia and thrombocytopenia. Leucopenia with neutropenia were confirmed on peripheral blood count, without any pathological findings on blood smear. A moderate enlargement of the spleen was found on abdominal ultrasound. The leucopenia got worst two months later, associating severe megaloblastic anemia (6 g/dl). As the dosage of folate and B12 were normal and no gastroesophageal bleeding had occurred we continued further hematological investigations. Bone marrow aspiration showed hypercellularity, few blastic cells, mild erythroblastopenia, megakaryocytar hyperplasia and dysplasia of megakaryiocytes and erythroblastes. A marrow bone biopsy was performed. Blastic cells, found in a percent of 20-22%, were CD 34 positive (stem cell marker) and negative for CD 61 (megakaryocyte marker). The histopathological aspect was compatible with an acute myeloblastic leukemia secondary to a myelodysplastic syndrome.

Conclusion: A myelodysplastic syndrome can be hidden behind hematological abnormalities found in cirrhotic patients. A strong collaboration between hepatologist and hematologist is needed to identify as early as possible the correct cause and implement appropriate therapy.

## Novel indicators for quality in endoscopy

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Quality standards of endoscopic procedures have been a constant concern among endoscopy services and regulation authorities in the last years. Although several quality indicators have been previously validated for colonoscopy, new ones have emerged recently and considerable attention has been paid to indicators for upper GI endoscopy also.

Along with the traditional quality metrics (cecal intubation rate, withdrawal time, adenoma detection rate, interval cancers), colonoscopy examinations are also being assessed by the number of polyps per patient; this new indicator is trying to differentiate endoscopists who are detecting one adenoma (and after identifying this one lesion continuing with less careful examination of the colon) from those who detect more than two adenomas/patient, thus being a good predictor of missing rates.

Regarding upper digestive endoscopy, several indicators have been proposed: inspection time, photo documentation of certain landmarks and lesions, use of mapping and scoring tools for premalignant conditions such as atrophic gastritis, gastric intestinal metaplasia or Barrett's esophagus and application of biopsy protocols for these conditions.

Development, validation and implementing of such indicators for endoscopic procedures is a good quality measure for endoscopic services, making them available for internal and external auditing and thus providing improved medical care for patients.

## Relationship between helicobacter pylori infection and digestive oncological pathology

**P. Nuță, Roxana Călin, A. Lungu**

Helicobacter pylori infection is the most frequent infection, its high prevalence being higher in developing countries. H.

pylori colonizes the stomach and duodenum, and it is localized in the areas of gastric metaplasia. The inflammatory process associated with the presence of bacteria destroys acid secreting glands and lead to hypoacidity, favoring the emergence of gastric ulcers and gastric cancer.

Helicobacter pylori is a group I carcinogen (shown carcinogenic agent in humans), and is proven correlation between infection with the microorganism, in particular cagA + strain, and gastric adenocarcinoma. Helicobacter pylori infection increases the risk of gastric cancer for 8 times, except tumors located at cardial level. Also, Helicobacter pylori was detected in 75% of patients with MALT lymphoma (mucosa-associated lymphoid tissue), eradication of microorganism causing various degrees of tumor regression in 70-80% of patients. The role of Helicobacter pylori eradication therapy in reducing the risk of gastric cancer is undeniable.

Although Helicobacter pylori infection has been incriminated in the occurrence of gastric cancer, it seems that it has protective against esophageal malignancies. One explanation is the appearance of atrophic gastritis with achlorhydria and consequent reduction of acid reflux into the esophagus. Another hypothesis is the induction of apoptosis of atypical cells in patients with Barrett's esophagus associated esophageal reflux.

The link between Helicobacter pylori infection and other digestive cancers is controversial.