

7th Central European Gastroenterology Meeting

CEURGEM 2012

Cluj-Napoca, Romania

27-29 September 2012

ABSTRACT BOOK

Please find here the abstracts of the oral and poster presentations of the meeting CEURGEM 2012. Only papers submitted before 2nd September 2012 were included.

The abstracts are printed as received, only few were edited according to the format of this abstract book. The authors have the responsibility for the content. Being a multidisciplinary meeting, the abstracts had been printed according to the alphabetical order of the first author.

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GREETING MESSAGE

Dear colleagues and friends,

We are proud to invite you to the 7th Central European Gastroenterology Meeting CEURGEM 2012 in Cluj-Napoca, Romania, 27-29 September. When almost two years ago, Professor Guenter Krejs asked me, on behalf of the steering committee of this series of gastroenterological meetings, if I could organize this meeting in Romania, I said: why not? Indeed it is important to continue regional meetings in the dynamic field of the digestive and liver diseases. The idea to organize the Central European meetings started in the nineties, following the dramatic political changes in the area. Due to a group of important leaders of opinion from Austria plus ex-communist countries, which was enlarged during the successive editions, these meetings became traditional. Last edition was organized in Prague and in 2 years we will meet again in Warsaw. Meanwhile, the generation of organizers changed partly and we are proud to be able to continue this tradition here in Romania.

Our city is very much appropriated to host CEURGEM 2012: being the major city of Transylvania, a province with spectacular historic and political past and a brilliant future, Cluj is proud of his multicultural background, nice architecture and surrounding landscape, the tremendous cultural life and the huge number of students, transforming the downtown in a true university campus. Situated in the heart of Central Europe, it will offer to our guests an unforgettable experience.

Thanks to our distinguished speakers and poster presenters, our scientific program is indeed very important. We are happy to have guests not only from Central and Eastern Europe, but also from Germany, Italy, France, and USA. The participation of the Rome Foundation will offer the possibility to better know in our countries the progress of the working committees on functional gastrointestinal disorders. We allocated special sessions for start of the art lectures, sessions on endoscopy and imaging techniques, a special workshop on extra-digestive organs involved in liver diseases and pathogenic links between digestive and non-digestive systems. A special meeting is dedicated to hepatology and was supported in part by the Agence Universitaire de la Francophonie, thus remembering that in East Europe and mainly in Romania, French still preserves its influence.

This meeting, under the patronage of the University of Medicine and Pharmacy "Iuliu Hatieganu", will offer also an excellent opportunity to meet old and new colleagues and maybe to start cooperative projects. We hope you will enjoy also our frame program.

Thank you for coming to this meeting!

Prof. Dan L. Dumitraşcu
President of the Meeting

CEURGEM 2012
7th CENTRAL EUROPEAN
GASTROENTEROLOGY MEETING
Cluj-Napoca, Romania
27-29 September

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SCIENTIFIC PROGRAM CEURGEM 2012

27 Sept 2012

19h00 Opening ceremony

20h00 Welcome cocktail

28 Sept 2012

9h00-10h20 – Session 1: Inflammation in the gastrointestinal tract

Chair: Mircea Diculescu, Milan Lukas

- Mircea Diculescu, Serban Gologan, Bucharest: Phenotypic and genotypic profile in inflammatory bowel disease in Romania – what is new?
- Cristina Cijevschi Prelipcean, Petruț Gogălniceanu, Bogdan Mihai, Cătălina Mihai, Iasi, London: What is the impact of age on adult patients with inflammatory bowel disease?
- Milan Lukas, Prague: Medicamentous therapy during pregnancy in IBD patients. Focus on biologic agents
- Cristian Magdaș, A Bejan, Vasile Cozma, Cluj-Napoca: Epidemiology, diagnosis and therapy study in animal cryptosporidiosis

10h20-10h40 – State of the art lecture

Chair: Petr Dite, Brno

Günter Krejs, Graz: Microscopic colitis

10h40-11h00 COFFEE BREAK

11h00-11h40 – Session 2: Helicobacter pylori

Chair: Simona Bataga, György Buzas

- Irina Ciortescu, Elena Toader, Vasile Drug, Dana Maria Cozma, Oana Zaharia, Iași: Is there any association between IBD and Helicobacter pylori infection?
- Simona Bataga, Târgu Mureș: Gastric cancer associated to Helicobacter pylori: what is new?
- György M. Buzás, Á. Premecz, I. Barta, J. Józán, J. Nagy, É. Szilágyi, Budapest: Chronobiology of Helicobacter pylori eradication with standard triple therapies: an 11-year retrospective study (2000-2010)

12h00-13h20 – Session 3: Neurogastroenterology

Chair: Agata Mulak, Vasile Drug

- Carmen Crivii, Cluj-Napoca: Anatomical basis of the central nervous influences on the symptoms in the functional gastrointestinal disorders
- Agata Mulak, Wroclaw: Visceral nociception in irritable bowel syndrome
- Vasile Drug, Ioan Chirila, Irina Ciortescu, Iași: Diet and irritable bowel syndrome
- Simona Grad, Dan Dumitrașcu, Cluj-Napoca: Intestinal flora: good or bad ?

13h20-13h40 – Satellite symposium Abbott

13h40-15h00 LUNCH

15h00 -18h00**MEETING ON HEPATOLOGY SUPPORTED BY THE AGENCE UNIVERSITAIRE DE LA FRANCOPHONIE****REUNION D'HÉPATOLOGIE AVEC L'APPUI DE L'AGENCE UNIVERSITAIRE DE LA FRANCOPHONIE**

Chair: Ludmyla Mateva, Adriana Albu, Raluca Pais

- Ludmyla Mateva, Sofia: Metabolic face of nonalcoholic fatty liver disease and chronic hepatitis C and B in Bulgaria
- Oliviu Pascu, Liana Gheorghe, Mihai Voiculescu, Emanoil Ceausu, Bogdan Mateescu, Cluj-Napoca, Bucharest: How severe is chronic hepatitis with HCV genotype 1b? A study of 1220 cases on the waiting list for antiviral therapy in Romania
- Raluca Pais, Vlad Ratziu, Paris: NASH: from clinical practice guidelines to real life settings.
- Corina Radu, Dana Crisan, MD Grigorescu, Z Sparchez, M Grigorescu, Cluj-Napoca: Non-Invasive serological assessment of fibrosis in non-alcoholic fatty liver disease (NAFLD)
- Iulianna Lupasco, Vlada-Tatiana Dumbrava, Ina Romanciuc, Kishinev: Screening of chronic diffuse liver diseases among the healthy population in Republic of Moldova
- Elena Toader, Irina Ciortescu, Andreea Nistor, Iasi: Alcohol consumption and C-Reactive Protein levels in chronic liver disease
- Adriana Albu, Teodora Surdea-Blaga, Dan L. Dumitraşcu, Cluj-Napoca: Atherosclerosis and arteriosclerosis in viral liver cirrhosis
- Dana Crisan, Corina Radu, Mircea-Dan Grigorescu, Mircea Grigorescu, Cluj-Napoca: Metabolic syndrome in chronic hepatitis C: insulin resistance, adipocytokines profile

PARALLEL SESSIONS (15h00-18h00)**15h00-16h00 – Panel discussion: Diagnosis and therapy of neuroendocrine tumours**

Chair: Patriciu Achimas Cadariu

- Bogdan Fetica, Cluj-Napoca: Pathological diagnostic in neuroendocrine tumors
- Calin Cainap, Cluj-Napoca: Chemotherapy in neuroendocrine tumors
- Patriciu Achimas Cadariu, Cluj-Napoca: Surgical treatment of neuroendocrine tumors

16h00-16h20 – Satellite symposium Reckitt Benckiser Healthcare LTD**16h20-16h40 – Satellite symposium Roche****16h40-17h40 – Session 4: Novel endoscopic approaches – Part 1**

Chair: Julius Spicak, Marcel Tantau

- Julius Spicak Prague: Miniinvasive treatment of acute necrotizing pancreatitis. Timing and technique
- Marcel Tantau, Cluj-Napoca: Biliary duct tumors: advances in diagnosis and palliative treatment
- Juergen Barnert, Augsburg: The usefulness of colonic video capsule

17h40-18h00 COFFEE BREAK

18h00-19h00**WORKSHOP: THE GUT AND THE BODY: LINKS AND PATHOGENIC MECHANISMS UNVEILED – Part 1**

Chair: Petr Dite, Laszlo Herszeny, Piero Portincasa

- Herszényi László, Budapest: From chronic inflammation to cancer: the special role of proteinases
- Piero Portincasa, Bari: Gallbladder and gastric motility in obese newborns, preadolescents and adults
- Leonilde Bonfrate, Piero Portincasa, Bari: Body fat-liver fat: a paradigm of pan-metabolic abnormalities
- Petr Dite, Brno: IgG4 Related Diseases

19h00-19h20 – Satellite symposium BMS**20h00 RECEPTION****29 SEPT 2012****9h00-10h00****WORKSHOP: THE GUT AND THE BODY: LINKS AND PATHOGENIC MECHANISMS UNVEILED – Part 2**

Chair: Marko Banic, Laurentiu Nedelcu, Ina Romanciuc

- Marko Banic, Zagreb: C-reactive protein and gastroduodenal lesions in patients with coronary heart disease
- Ina Romanciuc, Iulianna Lupasco, Vlada-Tatiana Dumbrava, Kishinev: The possible involvement of immunological mechanisms in tryptophan blood-level depletion and developing of depression in patients with chronic viral hepatitis
- Laurentiu Nedelcu, Brasov: Impact and potential treatment of cirrhotic cardiomyopathy
- Laura Poanta, Simona Grad, Cosmin Grad, Dan L Dumitraşcu, Cluj-Napoca: Gastric emptying in type 2 diabetes mellitus – obese versus non obese patients
- Olga Orasan, Nicolae Rednic, Angela Cozma, Dorel Sampelean, Ljubomir Petrov, Cluj-Napoca: Serum erythropoietin – predictive factor for anemia in chronic hepatitis C in patients treated with pegylat-interferon and ribavirin

10h00-11h00 – Panel discussion: Advanced training in hepatogastroenterology: digestive oncology

Chair: Simona Valean, Petru Adrian Mircea

- Simona Valean, Cluj-Napoca: Advanced training in hepatogastroenterology: digestive oncology. WGO and EBGH project
- Oliviu Pascu, Cluj-Napoca: Digestive oncology advanced module for hepatogastroenterology specialists in Romania – a goal that SRGH hopes to achieve
- Marcel Tantau, Cluj-Napoca: Cluj-Napoca: Oncologic diagnostic and therapeutic endoscopy – present practice and perspective
- Petru Adrian Mircea, Cluj-Napoca: Oncologic ultrasound – present practice and perspective
- Andrada Seicean, Cluj-Napoca: Oncologic endosonography – present practice and perspective

11h00-11h20 COFFEE BREAK

11h20-11h40 – State of the art lecture**Chair:** Dan L. Dumitraşcu

Douglas Drossman, Chapel Hill: Understanding and Managing Patients with Chronic Severe Functional Gastrointestinal Pain

11h40-13h00 – Session 5: Surgical issues in gastroenterology**Chair:** Constantin Ciuce

- Constantin Ciuce, Cluj-Napoca: The place of reconstructive surgery in the treatment of oesophageal cancer
- Vasile Bintintan, Constantin Ciuce, Cluj-Napoca: Minimally Invasive Surgical Treatment of Colorectal Diseases
- Radu Seicean, Constantin Ciuce, Cluj-Napoca: Bariatric surgery in the therapy of morbid obesity
- George Dindelegan, Vasile Bintintan, Razvan Scurtu, Constantin Ciuce, Cluj-Napoca: Therapeutic options in anal fistulas
- Razvan Scurtu, Simona Cocu, George Dindelegan, Constantin Ciuce, Cluj-Napoca: Extended resections in liver and biliary tumors
- Sorin Barbu, Cluj-Napoca: Classification of acute pancreatitis 2012 – revision of the Atlanta Classification

13h00-13h15 – Satellite symposium Sodimed**13h15-13h30 – Satellite symposium Terapia****13h30-15h00 LUNCH****15h00-16h20 – Session 6: Imaging techniques in hepatology****Chair:** Radu Badea, Zeno Sparchez

- Radu Badea, Cluj-Napoca: Contrast enhanced ultrasonography in hepato-gastroenterology. Clinical applications, added value, limitations
- Alina Popescu, Timisoara: Contrast ultrasonography in the assessment of focal liver lesions
- Ioana Grigorescu: Comparative evaluation of ultrasonographic and radioisotopic assessment of liver nodules
- Zeno Sparchez, Cluj-Napoca: Intracavitary applications of contrast agents in hepatogastroenterology

16h20-16h40 COFFEE BREAK**16h40-17h30 – Session 7: Novel endoscopic approaches – Part 2****Chair:** Juergen Barnert, Adrian Goldis

- Adrian Goldis, Timisoara: Upper gastrointestinal bleeding- prognostic factors
- Alina Tantau, Cluj-Napoca: Diagnosis and endoscopic treatment of early gastric cancer
- Cristina Pojoga, Cluj: Knowledge and attitude toward colorectal cancer and colorectal cancer screening in Romanian general population

17h30-18h00 – Announcement of poster awards, closing and farewell

POSTERS

Esophageal and gastric diseases

P1. Paraneoplastic dermatomyositis in a patient with synchron gastric GIST and adenocarcinoma

Romeo Chira, Alexandra Chira, Astrid Binder, Roberta M. Mânzat Săplăcan, Petru A. Mircea, Cluj-Napoca

P2. Benign Gastrointestinal Stromal Tumors: Personal Experience

Mihai-Radu Diaconescu, Iasi

P3. Multiple gastric ulcers in children receiving single-dose NSAIDS

Smaranda Diaconescu, C. Olaru, G. Spulber, M. Burlea

P4. What is new in the exploration of esophageal motility using High Resolution Manometry with Pressure Topography

Teodora Surdea-Bлага, Dan L. Dumitraşcu, Stanislas Bruley des Varannes, Cluj-Napoca, Nantes

P5. Dramatic decrease in prevalence of Helicobacter Pylori and peptic ulcer disease over a 17-year period

Mária Zsófia Varga, Juhász Márk, Lakatos Gábor, Miheller Pál, Mihály Emese, Németh Annamária, Tulassay Zsolt, Herszényi László, Budapest

Small and large bowel diseases

P6. Diminutive and small colonic polyps: take them out or not?

O. Fratila, Tiberia Ilias, M. Puscasiu, Oradea

P7. Comparison of inflammatory response to transgastric and transcolonic NOTES

T. Hucl, M. Benes, M. Kocik, M. Krak, J. Maluskova, A. Splichalova, E. Kieslichova, M. Oliverius, J. Spicak, Prague

P8. Pentane and carbon disulphide breath concentrations: A potential indicator of Inflammatory Bowel Diseases activity

Hrdlicka Ludek, Prague

P9. Superficial necrolytic dermatitis in a dog. A case report

Viorica Mircean, Mircea V. Mircean, Cornel Cătoi, Adrian F. Gal, Mirabela O. Dumitrache, Andras Nagy, Marian Taulescu, Vasile Cozma, Cluj-Napoca

P10. Small intestinal bacterial overgrowth syndrome and irritable bowel syndrome.

I. Moraru, D. Dumitraşcu, P. Portincasa, Cluj-Napoca, Bari

P11. Psychological profile in patients with Ulcerative colitis and Crohn's disease

D. Panova, S. Derejan, R. Nikolov, Z. Spassova, Z. Krastev, Sofia

P12. 4 year follow-up of patients with IBS

Flaviu Rusu, Dan L. Dumitraşcu, Cluj-Napoca

Liver and pancreatic diseases

P13. Pancreatic and peripancreatic mass as a presentation of intra-abdominal tuberculosis: a case report

Z. Babic, S. Mustapic, M. Banic, I. Grgurevic, M. Vukelic Markovic, T. Stoos-Veic, M. Kujundzic, Zagreb

P14. HCC and liver transplantation: arising burden and satisfactory outcomes

R. Bartakova, S. Frankova, M. Oliverius, J. Sperl, E. Honsova, D. Kautznerova, V. Lanska, P. Trunecka, J. Spicak, Prague

P15. Non-invasive diagnosis of esophageal varices: a new frontier?

Adriana Bintintan, Romeo Chira, Georgiana Nagy, Roberta Manzat Saplacan, Simona Valean, Petru Adrian Mircea, Cluj-Napoca

P16. Prognostic significance of diabetes mellitus in patients with liver cirrhosis

Y. Boyanova, A. Aleksiev, L. Mateva, Sofia

P17. Effect of Cuprenil on liver disease in Bulgarian patients with Wilson's disease (WD)

Sonia Dragneva, T. Petkova, L. Mateva, Sofia

P18. Fatty liver disease (FLD) and various alcohol intake in patients with obesity

Radina Ivanova, A. Alexiev, L. Mateva, Sofia

P19. Are cardiovascular risk factors different in patients with nonalcoholic fatty liver disease with and without newly diagnosed diabetes mellitus type 2?

Raia Ivanova, A. Alexiev, S. Denchev, L. Mateva, Sofia

P20. Surrogate markers of insulin sensitivity/resistance in patients with nonalcoholic fatty liver diseases (NAFLD) and chronic hepatitis C (CHC)

C. Marinova, R. Ivanova, A. Alexiev, A. Ivanova, K. Antonov, D. Jeleu, L. Mateva, Sofia

P21. Carbohydrate-deficient transferrin (CDT) in chronic liver disease

C. Marinova, L. Mateva, D. Svinarov, Sofia

P22. Comparison between the serum level of endothelin ET 1-21 in patients with pulmonary arterial hypertension in patients with liver cirrhosis versus patients with left heart disease

Crina Roman, Dana Pop, Dumitru Zdrenghia, Dan L. Dumitraşcu, Cluj-Napoca

ABSTRACTS

1. Atherosclerosis and arteriosclerosis in viral liver cirrhosis

Adriana Albu, Teodora Surdea-Blaga, Dan L. Dumitrascu

2nd Department of Internal Medicine, "Iuliu Hațieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania

Liver cirrhosis is an important cause of morbidity and mortality all over the world. This condition involves also the cardiovascular system, including anatomic and hemodynamic changes. Arterial alterations in liver cirrhosis are complex and incompletely understood. Two different aspects may play an important role: atherosclerosis and arteriosclerosis. Data published in literature in relation with hepatic viral infection and atherosclerosis are conflicting. Traditionally it has been reported that patients with liver cirrhosis are protected against atherosclerosis, coronary heart disease and stroke. This protection was explained by the decrease of some vascular risk mediators such as cholesterol, coagulation factors, platelet count and function. However, recent studies showed a correlation between viral hepatitis and an increased cardiovascular risk which seems to be particularly linked to HCV infection. Suggested mechanisms of increased cardiovascular disease in HCV are: associated glucose metabolism disorders including diabetes mellitus, insulin resistance or inflammation. Increased inflammatory cytokines seem to mediate the insulin resistant state associated with HCV. The virus itself has direct effect on the vessel wall. Recent data suggest increased arterial stiffening in chronic viral hepatitis and early viral cirrhosis. Nitric oxide (NO) that increases in advanced stages of cirrhosis induces a vasodilatory peripheral effect with reduction of arterial stiffness. Arteriosclerosis could directly promote cardiovascular disease. We review the principal mechanisms that may be related to the development of atherosclerosis and arteriosclerosis in viral liver cirrhosis.

2. Pancreatic and peripancreatic mass as a presentation of intra-abdominal tuberculosis: a case report

Z. Babic¹, S. Mustapic¹, M. Banic¹, I. Grgurevic¹, M. Vukelic Markovic², T. Stoos-Veic³, M. Kujundzic¹

1) Department of Gastroenterology, Clinical Hospital Dubrava; 2) Department of Radiology, Clinical Hospital Dubrava; 3) Department of Cytology, Clinical Hospital Dubrava, Zagreb, Croatia

Tuberculosis (TB) of the digestive tract may involve any part from the esophagus to the anus. Intra-abdominal TB usually involves the liver, spleen, bowel, peritoneum and mesenteric lymph nodes, with the commonest site being the ileo-caecal area. We report a case of 32 yrs old female presented with sudden epigastric pain and fever. The intra-abdominal TB was diagnosed with the help of endoscopic ultrasound guided fine needle aspiration cytology (EUS-FNA) and PCR analysis. TB of the digestive tract is a diagnostic challenge, especially in patients without evidence of active TB infection. It may mimic other abdominal diseases such as Crohn's disease, tumors. TB should be included in the differential diagnosis of intra-abdominal lymphadenopathy and intra-abdominal masses.

3. C-reactive protein and gastroduodenal lesions in patients with coronary heart disease

M. Banić^{1,2}, L. Prka¹, D. Fabijanić³, L. Zaputović², D. Kardum¹, Ž. Babić, S. Pleško⁴, S. Mustapić¹

1) Division of Gastroenterology, University Hospital Dubrava, Zagreb; 2) School of Medicine, University of Rijeka; 3) Division of Cardiology,

University Hospital Split; 4) Department of Clinical and Molecular Microbiology, University Hospital Centre Zagreb, Croatia

It could be assumed that coronary heart disease (CHD) patients taking low-dose aspirin, especially in countries with high prevalence of *H. pylori* infection (Hp), are at higher risk for developing gastroduodenal (GD) lesions and upper gastrointestinal (GI) bleeding, as well.

The Croatian population as a part of the Central and southeast European population has a relatively high prevalence of *H. pylori* infection (68% on an average) when compared with the overall *H. pylori* prevalence in the population of USA and Western Europe. Several recent studies in Croatia pointed to GD dyspepsia as a significant symptom of Hp, previous history of active PUD, and use of low-dose aspirin as to most prominent markers of single and/or multiple PUDs in CHD patients with dyspepsia. According to these observations, in areas with a high prevalence of Hp, endoscopy and a "search and treat" strategy for CHD patients with dyspepsia should be performed.

In studies that followed, that included unselected cohort of patients scheduled for CABG, regardless of presence or absence of dyspepsia, Hp was not identified as an independent factor in the development of GD lesions. In our last study, we observed that elevated high sensitivity C-reactive protein (hs-CRP) levels were independently correlated with GD lesions in patients with CHD. According to these results, in CHD patients with elevated hs-CRP levels upper GI endoscopy should be strongly considered even when obvious symptoms of GD lesions are missing. Taken altogether, the results support important clinical and possible etiopathogenetic association between Hp, GD lesions and CHD.

4. Colon Capsule Endoscopy (CCE): Ready for clinical use?

Juergen Barnert

Klinikum Augsburg, Germany

Almost ten years ago first reports about CCE produced by Given Imaging were published. This new diagnostic technology allows exploration of the colon without the need for sedation and gas insufflation. In 2009 a second generation of CCE (CCE-2) has been released that provides a higher number of images per second and a larger viewing angle. Optimal cleansing of the colon is essential for this procedure. Compared to conventional colonoscopy the cleansing protocol cannot be restricted to the time before the procedure but must be continued intraprocedurally. To achieve a short colon transit time, sodium phosphate boosts seem to be necessary during preparation. Various potential indications are possible: (i) About 5% - 20% of colonoscopies are incomplete or temporary contraindicated. In these patients CCE yields a positive result in 34%. (ii) The acceptance of the conventional colonoscopy in colorectal cancer (CRC) screening is low and compliance rate do not

rank above 25%. Non-invasive techniques like CCE may improve uptake of CRC screening. Studies using CCE-2 showed a sensitivity of 86% and a specificity of 71% for significant findings (polyps >6 mm size, or > 3 polyps). (iii) CCE may be a useful tool to monitor inflammation in ulcerative colitis and may help to guide therapy. Although sensitivity to detect active inflammation is high (89%), specificity (75%) is low.

5. HCC and liver transplantation: arising burden and satisfactory outcomes

R. Bartakova, S. Frankova, M. Oliverius, J. Sperl, E. Honsova, D. Kautznerova, V. Lanska, P. Trunecka, J. Spicak

Institute for Clinical and Experimental Medicine, Prague, Czech Republic

OLTx is a universal therapeutic option for early HCC. The aim of our study was to analyse the outcome of OLTx in patients with HCC, found preoperatively or incidentally.

861 patients who underwent OLTx were enrolled, with HCC found preoperatively or incidentally.

The group of HCC consisted of 63 patients, 35 patients were diagnosed with incidental HCC based on liver explant. The most common cause of cirrhosis was HCV in both groups. All HCC patients achieved five-year survival of 68%, which was significantly lower than in other diagnoses. There was no significant difference in survival between the HCC and incidental HCC groups. Thirty HCC patients died, 12 patients due to recurrence of HCC and 18 because of other causes. After all explants evaluation, the Milan criteria were fulfilled in 42 patients, with no significant difference between both groups, a significantly higher rate of recurrence was observed in patients not fulfilling the Milan criteria.

Patients with incidental HCC do not differ from patients with preoperatively found HCC in terms of the extent of the disease and survival. In both groups, those fulfilling the Milan criteria have a significantly better prognosis.

6. Gastric cancer associated to Helicobacter pylori: what is new?

Simona Bataga

University of Medicine and Pharmacy, Tirgu-Mures, Romania

Almost 1 million cases of gastric cancer are diagnosed each year, establishing this disease as the fourth most common cancer worldwide. This is the second leading cause of cancer related deaths.

In 1982, Robin Warren and Barry Marshall definitively identified *Helicobacter pylori* (HP) by culturing an organism from gastric biopsies. In 1994, based on epidemiological evidence, the IARC (part of WHO), recognized the infection of HP as a primary cause of gastric adenocarcinoma.

Helicobacter pylori was recognized as a type I carcinogen, and now it is considered the most common etiologic agent of infection-related cancers, which represent 5.5% of the global cancer burden.

Despite clear associations, there is marked individual variability in outcomes; most patients have non-neoplastic rather than a neoplastic process. There is a complex interaction between genetic, environmental and bacterial factors. There are three main important factors that are important in inducing the malignant changes: 1. strain variation (Vac A, CagA, Cag PAI, Hop proteins, BabA etc.) 2. topographical variation and 3. host factors (strong Th1 immune response, genetic polymorphism of cytokine genes: higher levels of cytokines IL-1 β , higher level of TNF- α , low IL-10).

It has been an issue of interest around the world as to whether the eradication of *H. pylori* can prevent gastric cancer. In the last years, after treating HP, most of the studies showed the decreasing in incidence of gastric cancer. In Romania the mortality from gastric cancer decreased at a half in the last decades, being correlated with the large number of patients treated for HP and with the HP eradication.

7. Non-invasive diagnosis of esophageal varices: a new frontier?

Adriana Bintintan, Petru Adrian Mircea, Romeo Chira, Georgiana Nagy, Roberta Manzat Saplacan, Simona Valean

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Introduction. The use of non-invasive markers for diagnosis and staging of esophageal varices (EV) can spare patients an unnecessary upper gastrointestinal endoscopy and thus improve the patient's compliance to treatment and reduce the overall costs of therapy.

Aim. The aim of this study is to stage esophageal varices using only non-invasive imaging and biological parameters (Doppler ultrasound and serologic markers).

Material and method. This prospective study included patients with liver cirrhosis (viral or alcoholic etiology) without history of upper digestive hemorrhage, portal vein thrombosis, hepatocarcinoma or beta-blocker treatment. Serologic markers (number of thrombocytes, Fibrotest, direct markers of liver fibrosis) and gray-scale and Doppler abdominal ultrasound were the non-invasive parameters evaluated while presence and grade of esophageal varices were confirmed in every patient by upper gastrointestinal endoscopy. Statistical analysis was done using the Spearman test.

Results. Of the 30 patients with liver cirrhosis, 10 had grade I esophageal varices (EV), 15 patients had grade II EV and 5 patients had grade III EV. There are significant

statistical correlations between presence of EV and the portal hypertension index, the liver index, the length of the long axis of the spleen, the area of the spleen and two other parameters defined as division of the number of thrombocytes to the area of the spleen and to the length of the long diameter of the spleen. The same correlation was observed with the results of the Fibrotest and the serum values of YKL-40 and hyaluronic acid respectively.

Conclusions. Our data suggest that non-invasive diagnosis of EV is possible using a model that combines specific imaging and serologic parameters.

8. Minimally invasive surgical treatment of colorectal diseases

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Introduction. Minimally invasive surgery is considered nowadays an adequate alternative to open surgery in patients with benign or malignant diseases of the colon and rectum and has determined one of the fastest growing fields in visceral surgery today. Patients around the world benefit now in increasing numbers from the advantages of laparoscopic or transanal endoscopic resection techniques.

Material and method. A prospective non-randomized trial, started in 2008 in Cl. Chirurgie I compared the perioperative outcome of laparoscopic vs open colorectal resections by evaluating a series of intraoperative and postoperative parameters. In 2010 we also introduced the technique of endoscopic transanal excision (TEO) of rectal tumors located up to 16 cm from the anal verge, and included all operated patients in a prospective database.

Results. Patients operated laparoscopically had a quicker postoperative recovery and regained earlier their preoperative status and quality of life. There were no differences between the two groups, open or laparoscopic, regarding radicality and extent of resection. The TEO technique allowed complete, one-piece, removal of the tumor using a less extensive surgical procedure and preservation of the anal sphincter in low-lying rectal masses.

Conclusion. Development and refinement of minimally invasive surgical techniques in colorectal diseases offers significant benefits to the patients in terms of postoperative recovery and quality of life without compromising the oncological outcome.

9. Prognostic significance of diabetes mellitus in patients with liver cirrhosis

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The prognostic impact of diabetes mellitus (DM) in patients with liver cirrhosis (LC) remains controversial. We assessed the prognostic significance of DM on the five-year survival of 350 Bulgarian cirrhotic patients (175 with, 175 without DM). The cumulative survival rates of patients with LC Child A and DM were 54% at 5th year, significantly lower compared to those cases without DM – 85% ($p < 0.001$). Child B cirrhotic patients with DM showed also lower survival rates till the 4th year ($p < 0.01$), and there were no differences on the 5th year of follow-up. Only 10 patients with LC and DM and 8 cirrhotic patients without DM survived. All Child C patients ($n = 50$) died till the 2nd year of follow-up, 44 of them (20 with, 24 without DM) died between the 6th and the 12th month. The main causes of death were cirrhosis-related complications, independent of the presence of DM. Only 2% of the patients died from other reasons. In conclusion, our results confirm the negative impact of DM on the survival of patients with LC, especially Child A, because of deterioration of the liver disease. DM does not affect the course of advanced LC.

10. Body fat-liver fat: a paradigm of pan-metabolic abnormalities

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Obesity represents the metabolic epidemic of this millennium with a emerging worldwide distribution. The prevalence of obesity and related illnesses has increased dramatically over the past decades, also in children and adolescents. Environmental and lifestyle-related factors such as reduced physical activity, sleep deprivation, TV watching, alcohol consumption and high-fat diets are strongly linked to obesity and metabolic syndrome (MS). Obesity-overweight is the phenotypical expression of body fat, in particular of visceral adipose tissue (VAT). Excess VAT is an important and independent predictor of metabolic risk factors for coronary heart disease, in particular dyslipidemia and type 2 diabetes. Increase in VAT is associated with impaired glucose tolerance, insulin resistance (IR), hypertension, and abnormal lipid values. In the liver, fat deposition leads to a clinico-histopathological entity namely non-alcoholic fatty liver disease (NAFLD). Clinical importance of non-alcoholic fatty liver disease has grown in recent years, due to increased obesity, sedentary habits and high calorie western type diet. NAFLD is the most common liver disorder with a prevalence of 15-45 % in adults. NAFLD has multifactorial aetiology, strongly related to increased visceral adiposity plus IR with ongoing increased release of free fatty acids from peripheral tissues (i.e. fat and muscle). NAFLD may range from asymptomatic steatosis with possible aminotransferase alterations to non-alcoholic steato-hepatitis, cirrhosis, and also hepatocellular carcinoma. Available data from clinical, experimental and epidemiological studies describe the

NAFLD as the hepatic manifestation of MS. In recent years, our group has produced a number of data based on animal and clinical studies in liver steatosis. Choline-deficient diet or diets enriched with saturated fats induce liver changes which mimic human steatosis with a number of abnormalities affecting subcellular elements (i.e. mitochondria, aquaporins, caveolin etc.). In humans, the increase in liver steatosis and visceral adiposity are associated with increased carotid intima-media thickness (IMT) in MS patients compared with control. Moreover visceral adiposity significantly correlates with low HDL. Overall, subjects with NAFLD appear to bring an increased risk of cardiovascular disease, morbidity and mortality. Because of the social and economic burden of NAFLD, early interventions are needed. Both alimentary rieducation and physical activity may play a prominent role in this respect to ameliorate insulin resistance, and visceral, hepatic, and intramyocellular fat accumulation.

11. Chronobiology of *Helicobacter pylori* eradication with standard triple therapies: a 11-year retrospective study (2000-2010)

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Background. The seasonal periodicity of peptic ulcer was described by classics of Romanian gastroenterology such as Iuliu Hațieganu and Octavian Fodor as a feature of patients living in temperate regions.

Aim. To analyse the seasonal changes of eradication rates of *Helicobacter pylori* with standard triple therapies in duodenal ulcer and functional dyspepsia patients.

Methods. 512 patients were included who had endoscopically proven duodenal ulcer, functional dyspepsia and *Helicobacter pylori* infection confirmed by rapid urease test and biopsy and who underwent a standard triple therapy (any of proton pump inhibitor + amoxicillin + clarithromycin b.i.d. for 7 days) between 2000 and 2010. Eradication control was performed with a ¹³C-urea breath test 6 weeks after treatment. The seasonal and monthly eradication rates were statistically compared (ANOVA/Tukey post-hoc tests).

Results. Eradication rates were 65.7 (95% confidence interval: 56.8.-74.2) in the spring, 79.5 (70.5- 88.3) in the summer ($p = 0.002$), 65.4 (57.4-73.4) in the autumn and 82.9 (75.9-89.3) during the winter ($p = 0.001$). The eradication rates peaked in December (83.8%, CI: 71.3-95.2) and January (86.8%, CI: 75.6-97.3), and were lowest in September (54.1%, CI: 37.2-72.3) and March (66.7%, CI: 52.8-77.6). The seasonal variations were similar in duodenal ulcer and functional dyspepsia patients, the overall rates (70.6 and 76.6%, respectively) were not different ($p = 0.18$). Regression analysis showed that seasons influence the rates of eradication independently ($r = 0.009$).

Conclusions. Our results suggest that the success of eradication treatment undergoes seasonal variations. The reasons for this could be seasonal changes in bacterial pathogenicity/antimicrobial resistance, host neuroimmunological or environmental factors (climate, nutrition?).

12. Paraneoplastic dermatomyositis in a patient with synchron gastric GIST and adenocarcinoma

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If gastric adenocarcinoma is the most frequent type of gastric malignancy, gastrointestinal stromal tumour (GIST) is a rare condition accounting for only approximately 1-3% of gastric tumours. The simultaneous presence of GIST and adenocarcinoma is very rare and has been rarely documented.

We present the case of a 79 year old man with dermatomyositis that was referred from a Dermatological Clinic. The patient developed dermatomyositis for which underwent multiple dermatological consults. On physical examination we found pruritic erythematous-violaceous eruption on face, scalp and eyelids; pruritic erythematous-squamous plaques on both elbows; erythematous-violaceous lesions on the dorsal hands and interphalangeal joints – Gottron papules; thickened nail plates, perinail teleangiectasia; muscular hypotonia; systolic murmur grade II/III in aortic area; and a well delimited tumoral formation, hard, mobile, 10 cm in diameter extended from epigastric area to umbilical region. A gastric synchron malignancy adenocarcinoma and GIST was diagnosed using oesophago-gastro-duodenoscopy with biopsies and confirmed by histological and immunohistochemical markers of the biopsies. Examinations were completed with abdominal ultrasonography and computed tomography. Subtotal gastrectomy with gastrojejunal anastomosis Billroth II was performed with tumor-free resection margins and postoperative good evolution. The presence of the paraneoplastic dermatomyositis represents another peculiarity of this case.

13. Is there a relationship between Helicobacter pylori infection and inflammatory bowel disease?

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In recent decades, in Romania, there was an increased incidence of inflammatory bowel disease (IBD) and a decrease in the prevalence of Helicobacter pylori (Hp) infection. From this perspective, we wanted to test whether there is a relationship between Hp infection and IBD.

Materials and method. We conducted a prospective study that included 98 patients with IBD at who we have watched, in their antecedents, the presence of Hp infection and its eradication. Through anamnesis we selected patients with IBD who were tested and treated for infection with Hp. The eradication of Hp infection control was made by determining the Hp fecal antigen (Ag).

Results: Of the 98 patients with IBD admitted to Gastroenterology and Hepatology Center between January 2010 and December 2011, only 30 patients (30.6%) met the selection criteria. From these 30 patients, 10 patients had Crohn disease (CD) and 20 patients had ulcerative colitis (RCUH), with a mean age of 34 years. In 25 patients (83.33%) Hp fecal Ag was negative and in 5 patients (16.66%) Hp fecal Ag was positive.

Conclusions: Eradication of Hp infection may be a risk factor for IBD.

14. Metabolic syndrome in chronic hepatitis C: insulin resistance, adipocytokines profile

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Background. Chronic hepatitis C (CHC) is not only an infectious disease as it proved to be associated with insulin resistance (IR) and features of metabolic syndrome (MS), conditions that may influence the response to antiviral therapy.

Aim. To assess the prevalence of MS, IR and adipocytokines in CHC and their influence on sustained virologic response (SVR).

Methods. We prospectively included 131 patients with CHC, followed up during antiviral treatment and 24 weeks after completion, evaluated for MS and IR features at baseline and in follow up. All patients had liver biopsy at start.

Results. At baseline, 47% of patients had MS and 58% were insulin resistant (HOMA-IR>2). The presence of MS was significantly associated with age (p<0.001), BMI (p<0.001) and IR expressed through classic formula (p=0.004) and also using HOMA 2 (p=0.04) and HOMA beta (p=0.02). SVR was associated in univariate analysis with lower age (p=0.003), BMI (p=0.002), IR (p=0.04) and

with higher levels of cholesterol ($p=0.04$) and adiponectin ($p=0.03$). In multivariate analysis, only IR and age were independently associated with SVR.

Conclusion. CHC is associated with metabolic and adipokines profile disturbances. Of these, IR, BMI, cholesterol and the level of adiponectin have a significant influence on SVR.

15. Anatomical basis of the central nervous influences on the symptoms in functional gastrointestinal disorders

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The ability of the organism to adapt to the environmental stimuli conserves the state of well-being.

Stress, an inevitable component of life, can induce an inappropriate reaction. In the predisposed individuals, the central stress circuits (including the emotional motor system) with alteration of central stress responsiveness and different visceral perceptions, increase the vulnerability to develop a FGID. In relation to the modulated visceral afferents, the stress can induce the alteration of the gastrointestinal motility, via the peripheral reactions of the autonomic nervous system.

On the other hand, the central stress can influence the immune and inflammatory reactions in the gastrointestinal tract - there are evidences for both: healthy subjects and individuals with organic disease. The mechanism is provided by the hypothalamo-pituitary-adrenal axis activity in correlation with the autonomic nervous system.

Life with chronic stress bring an exacerbation of symptoms of FGID, correlated with abdominal pain, bowel symptoms, days with disabilities.

Functional gastrointestinal disorders are frequently associated with other chronic stress – sensitive pain disorders. There are evidences that similar alterations in central stress circuits may account for the frequent co-existence of the disorders.

The clinical evidence of the central mechanisms of FGID is reflected in the medications proven to be effective in the treatment of the symptoms.

16. Benign gastrointestinal stromal tumors: personal experience

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Background. Benign gastrointestinal stromal tumors (BGISTs) are relative rare and heteroge-nous lesions with

impredictible clinical behaviour and prognosis. The aim of this study is to review the clinical presentation, surgical management and outcome of patients with BGISTs in the author's experience.

Patients and metods. Fifteen cases with BGISTs (median age 58 years, M/F ratio 1/1,5) repre-senting 1,2 % of all patients undergoing surgery for GI tumors in the last forty years are retro-spectively reviewed.

Results. There were 9 schwannomas, two leiomyomas, two lipomas and one each of fibroma and "mixoma". The commonest clinical features were anorexia, dyspepsia and abdominal pain ($n=11$), GI bleeding ($n=8$), tumor ($n=5$) and bowell obstruction ($n=1$). Histological confirmation of their benignity was not easy but immunohistochemical data were sometimes available. The surgical indication appeared mandatory in all the cases which underwent either conservative exeresis (tumorectomy with edge resection) or standard gastric, enteric or colonic resections. Postoperative course was uneventful. At an overall five years follow-up all the patients were alive without recurrences or metastasis.

Conclusions. A single surgeon meets (by chance) few BGISTs in his professional life. Histological diagnosis of these lesions is not always decisive imposing a long period of follow up of patients. Standard visceral operations are preferable to the case adapted resections.

17. Multiple gastric ulcers in children receiving single-dose NSAIDS

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Clinical case summary. Nonsteroidal anti-inflammatory drugs (NSAIDs) are commonly used in pediatric practice. Complicated gastric ulcers are rarely mentioned in children receiving a single dose of these compounds.

Case reports and results. During a two years period three children aged 3 to 5 years were admitted in our unit for upper gastrointestinal bleeding in the first 24 hours after receiving only one dose of ibuprofen (5 ml) or aspirin (250 mg) for fever control. Early esogastroduodenoscopy showed in two cases a double antral ulcer (in the third case we couldn't obtain an informed consent from the parents). All the children received PPI; in one case transfusions were required. The child who didn't underwent endoscopy returned after three weeks with severe vomiting; barium meal showed a constituted pyloric stenosis imposing an antrectomy.

Discussions and conclusion. Chronic use of NSAIDs is associated with gastro-duodenal injuries. This paper reports three patients presenting unusual complications as multiple hemorrhagic ulcer lesions or rapid evolution to pyloric stenosis after receiving only single dose of aspirin or ibuprofen.

18. Phenotypic and genotypic profile in inflammatory bowel disease in Romania - what is new?

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Aim. Our aim was to find out if there are differences between genetic background and phenotype in the Romanian population with IBD. Cytokines and their receptors investigated in this study whether inflammatory genes expression in inflamed and non-inflamed colonic tissue samples are different in Crohn's disease (CD) vs. ulcerative colitis (UC). The aim of this presentation is to present new data from our study as results of the analysis of new tissue samples.

Methods. Thirty-eight CD patients and 33 UC patients have been included in the study. For each patient, biopsy samples were obtained during colonoscopy from inflamed (L) and healthy (N) mucosa. RNA isolated from the tissue samples was analysed using a Multiplex Ligation-dependent Probe Amplification (MLPA) protocol, which comprises probes for a set of 40 mRNA molecules: cytokines, chemokines, receptors, signal transduction molecules, transcription factors.

Results. In L biopsies from patients with CD, higher expression levels were found for IL-4 ($p=0.009$) and IL-12p35 ($p=0.0005$) whereas in L biopsy samples from patients with UC higher expression levels were found for IL-8 ($p=0.03$), SCYA3 ($p=0.05$), SCYA4 ($p=0.01$), GSTP1 ($p=0.01$). In N biopsies of patients with CD higher expression levels were found for IL-1RN ($p=0.01$) and IL-12p35 ($p=0.007$), whereas in N biopsies of patients with UC higher expression levels were found for IL-15 ($p=0.009$) and SCYA8 ($p=0.001$).

Conclusions. We found different patterns of cytokines expression in both inflamed and non-inflamed mucosa in patients with CD and UC.

19. Immunoglobulin G4 related disease

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IgG4-related disease is a novel disorder that demonstrate hyper-IgG4 gama globulinemia and IgG4-producing plasma cell infiltration in affected organs with fibrotic and/or sclerotic changes.

In year 2001 first patients with elevated serum IgG4 was

described as autoimmune pancreatitis. Most patients diagnosed with autoimmune pancreatitis have IgG4-related pancreatitis type 1 AIP-lymphoplasmatic sclerosing pancreatitis (GEL neg) or AIP 2- idiopathic duct-centric chronic pancreatitis (GEL pos). Other IgG4 related disease are IgG4 related cholangitis, retroperitoneal fibrosis, lymphadenopathy, Mikulicz sy, nephropathy, masitis and others.

Diagnosis of IgG4 related is characterized by both elevated serum IgG4 over 135 mg/dL and histopathological features-lymphocyte and IgG4 plasma cell infiltration, with typical tissue fibrosis or sclerosis and venulitis.

Important role has differential diagnosis between this group of disease and other disorders, as is Castelman's disease, Wegener's granulomatosis, lymphoma or cancer. Typical marker for IgG4-related disease is elevation of IgG4 plasma level 3-times over normal value and histopathological remarks.

Crucial role in the therapy of IgG4 related disease play steroids. Complete biochemical and histopathological regression were described- furthermore spontaneous regression without any treatment may occur.

Still questionable is, if IgG4-related disease is a systemic disease—as IgG4-multiorgan lymphoproliferative syndrome?

20. Effect of Cuprenil on liver disease in Bulgarian patients with Wilson's disease (WD)

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Cuprenil is the standard treatment of WD but its effect on liver disease progression was never established in Bulgarian adult patients. We evaluated the effect of Cuprenil on liver disease progression in 65 Bulgarian patients with WD treated with Cuprenil in average dose 1025 mg/d and followed-up for a mean period of 11.35 years. Adherence to therapy was observed in 72% of cases. In 70% of them was associated with effective level of urine copper excretion (8.34 ± 11.2 $\mu\text{mol}/24\text{h}$). At the time of diagnosis liver cirrhosis was present in 36 patients and acute/chronic hepatitis - in 29. Normalized level of the liver enzymes was observed in 58% of patients. Liver cirrhosis developed in 57% of patients with chronic hepatitis, but 73% of patients with decompensated liver cirrhosis maintained Child A. In 86% of patients liver disease did not progress. Oesophageal varices did not develop in 63% of patients with liver cirrhosis. During treatment reduction of Kaiser-Fleischer ring was observed in 26% of patients. All patients maintained non-significant proteinuria (0.39 ± 0.29 g/24h). In conclusion, treatment with Cuprenil is well tolerated and delays the natural course of the disease.

21. Diet and irritable bowel syndrome

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Objectives. The aim of the study was to determine the prevalence of IBS in general urban population and to evaluate the type of diet associated with IBS symptoms. Recent papers highlight the role of diet in irritable bowel syndrome (IBS), but few population-based studies evaluated this.

Methods. A randomized sample of subjects (n=300) from a general urban population selected from the family doctors patient lists was invited for interview in the doctor's office. Selected subjects were evaluated for the diagnosis of IBS using Rome III criteria and also for their eating habits and diet using a food frequency questionnaire. Socio-demographic factors and general medical history were also included in interview together with objective evaluation of overweight. Results from logistic regression were presented as odd ratio and 95 % confidence intervals.

Results. From the selected sample, 193 subjects (80 males, 113 women, mean age 50.8±16.2) have agreed to participate (rate 64.3%). Prevalence of IBS was 19.1 % (19.4% for females and 18.7 % for males). IBS was associated with older age (1.05, 1.02-1.08, p<0.001) and past history of digestive diseases (5.0, 2.0-12.7, p<0.01). IBS subjects are eating significantly more frequent the following foods: canned food (7.4, 2.2-25.4, p<0.01), processed meat (4.7, 1.6-14.1, p<0.01), pulses (legumes) (4.0, 1.3-16.3, p<0.01), whole cereals (8.7, 2.0-37.8, p<0.01), confectionary (5.7, 1.8-23.2, p<0.01), fruit compotes (canned or not) (7.4, 2.5-23.1, p<0.001) and herb teas (4.0, 1.3-16.3, p<0.001).

Conclusions. This study updated prevalence data and revealed association between diet and irritable bowel syndrome.

Key words: irritable bowel syndrome, food frequency, prevalence, urban health, odds ratio.

22. Diminutive and small colonic polyps: take them out or not?

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Introduction. Colorectal cancer screening imposes detection and removal of premalignant lesions before becoming invasive. Regarding diminutive and small polyps, removal opinions are divergent as their natural history is poorly known.

Aim. To assess possible high risk histology features in diminutive (<5mm) and small polyps (6-10mm).

Methods. We reviewed 1154 polypectomies (978 patients) over a five-year period. The referral for colonoscopy was

based on the patient symptoms or on screening reasons in average risk persons. Polyp size was measured with an open biopsy forceps. All polyps were removed and referred to a pathologist with interest in digestive pathology.

Results. We performed 750 (65%) polypectomies for diminutive polyps, 231(20%) for small polyps and 173(15%) for large polyps. We met 904 (78.3%) adenomas, 130(11.2%) serrated polyps, 104(9%) hyperplastic polyps and 16 (1.4%) other types. We had 207(17.9%) high risk histology cases. The prevalence of high risk histology features was 7.5% (56) in diminutive polyps, 19% (44) in small ones and 62% (107) in large polyps. There were no cases of carcinoma in diminutive polyps.

Conclusions. Polyp size is an important risk factor for malignant transformation. However, because diminutive polyps can sometimes possess pathological significant histology we recommend to take out any polyp no matter of its size.

23. Intestinal flora: good or bad?

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In the healthy host, enteric bacteria (intestinal flora) colonize the digestive tract soon after birth and, after the first year of life, the composition of the intestinal microflora remains relatively constant. Over 500 different bacterial species can be found in the gastrointestinal tract. The types of microorganisms and their concentrations differ along the GI tract.

The intestinal flora has a lot of beneficial effects on the normal intestinal physiology: protective (natural barrier against the pathogenic bacteria), structural (increase epithelial resistance) and metabolic functions (metabolize lipids, proteins, carbohydrates, drugs, and produce nutrients and vitamins). Several host defensive mechanisms prevent the excessive colonization.

The most frequent diseases associated with dysfunction of enteric flora are: small intestinal bacterial overgrowth (SIBO), excessive intestinal gas syndrome, IBS, IBD. SIBO is characterized by an increased number and/or type of bacteria in the upper gastrointestinal tract. Affected patients may be asymptomatic or have one or more symptoms including bloating, abdominal discomfort, watery diarrhea, dyspepsia, and weight loss. SIBO has recently been considered as an aggravating factor in IBS.

H2 breath test is the most recommended test for SIBO. Excessive hydrogen production has been noted in patients with bacterial overgrowth following administration of glucose or lactulose.

The major therapies for intestinal bacterial overgrowth are: treatment of underlying disease, nutritional support, antibiotics, pro- and prebiotics, attempts addressed to treat the inflammation.

In conclusion, intestinal flora is good because it has an important role in the homeostasis of GI tract in healthy subjects; but also can be bad when the bacteria have deleterious effects.

24. Comparative evaluation of ultrasonographic and radioisotopic assessment of liver nodules

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Aim. Assessment of the complementary contribution of the data offered by ultrasonography (US) and scintigraphy, and the concordances of these regarding localization and etiology, in order to establish the positive and differential diagnosis of liver focal lesions, both in normal liver and in CLD (chronic liver diseases). **Material and methods.** 261 hepatic benign and malignant tumors were analysed both by gray-scale, Doppler-US and hepatic scintigraphy with sulphur-colloid; some of them underwent contrast-enhanced US (CEUS), Power Doppler (PD)-B-flow, hepatic angioscintigraphy (HAS) and „in vivo”-labeled-RBC-SPECT. The final diagnosis was established after correlating US-scintigraphic data with other imaging methods (CT, MR), clinical, laboratory, intraoperative and histological aspects. **Results:** Gray-scale, Doppler US and CEUS had high specificities in small (<2cm) tumors: haemangioma in normal liver (94.87%) and focal nodular hyperplasia (FNH) in CLD (92%). Cavernous haemangiomas with nonenhancing central areas raised problems of differentiation with necrosis in malignancy. Similar did FNH in steatosis, high-shunt-flow haemangiomas and angiomyolipomas, because of the hypoenhancement (late phase). Typical “spoke-wheel”-pattern (Doppler US) and intense blood accumulation (labeled-RBC-SPECT) were encountered in large FNHs (>6.5cm) respective 81.10% haemangiomas. Classical scintigraphy had low specificity in the diagnosis of adenoma, dysplastic/regenerative nodules, abscesses, if not correlated to other diagnostic methods. Supplementary lacunar areas (sulphur-colloid-SPECT) versus US might appear due to tumor’s isoechogenity. HPI (hepatic perfusion index) \leq 45% appeared in benign lesions and metastatic carcinoids; higher values (>45%) correlated with malignancy, but also voluminous benign tumors ($r=0.313$; $p<0.001$).

Conclusions: US and scintigraphy are complementary diagnostic methods, US representing the standard investigation for cysts, while HAS and labeled-RBC-SPECT are useful in haemangiomas and FNH. Atypical features require often further investigations (CT, MR or histology) to allow benign-malignant differentiation.

25. From chronic inflammation to cancer: the special role of proteinases

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Chronic inflammation is an important risk factor for the development of cancers. At least 20% of all cancers arise in association with infection and chronic inflammation. Inflammation and cancer are linked both along intrinsic (driven by genetic events causing malignancy) and extrinsic (driven by inflammatory conditions predisposing to tumor) pathways. In some tumors, a strong association with infection has been recognized (*Helicobacter pylori*, Hepatitis B, C), whereas in other tumors the etiology of inflammation is non-infectious. Patients with longstanding inflammatory bowel diseases (IBD) have an increased risk of colorectal cancer (CRC). Proteinases are key contributors to the breakdown and reconstitution of extracellular matrix components. Matrix metalloproteinases are especially essential in the complex process of co-regulation between cellular components of the tumor environment, and they are considered as potential diagnostic and prognostic biomarkers in many types and stages of gastrointestinal cancer.

Although the link between chronic inflammation and risk of developing cancer is now well established, several open questions remain. With respect to matrix metalloproteinases, the development of a new generation of selective inhibitors is a promising area of research. The most exciting challenge is to find the best approach to target cancer-related inflammation in patients with cancer.

26. Comparison of inflammatory response to transgastric and transcolonic NOTES

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NOTES is expected to be less invasive than laparoscopic surgery. The aim of our study was to determine the physiologic impact of NOTES and to make a comparison between transgastric, transcolonic and laparoscopic approach in a total of 30 pigs. After peritoneoscopy, incision sites were closed using an over the scope clip (OTSC). Blood was drawn before, 2 hours, 1, 2, 7 and 14 days after the procedure and analyzed for white blood cells (WBC), platelets, IL-1beta, IL-6, TNF-alpha and CRP. At necropsy, no macroscopic signs of inflammation were observed. There was a temporary rise of WBC on day 1 and of platelets on day

7 in all groups ($p > 0.05$, NS). No differences were observed in IL1-beta and IL-6 values. The levels of TNF-alpha were significantly higher in the colonic group ($p < 0.01$); however this difference was present already prior to the procedure and remained unchanged. The values of CRP rose on day 1 in all animals and slowly declined to almost normal levels on day 14 with no differences between the groups ($p > 0.05$, NS). In conclusion, transgastric, transcolonic and laparoscopic peritoneoscopy resulted in similar changes in systemic inflammatory markers.

27. Fatty liver disease (FLD) and various alcohol intake in patients with obesity

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The beneficial effect of light and moderate alcohol intake on cardiovascular disease and diabetes mellitus (DM) in nonalcoholic fatty liver disease (NAFLD) has been discussed. On the other hand, obesity and metabolic syndrome in patients with alcoholic liver disease (ALD) are associated with more severe liver damage. In this study we characterize and compare FLD in obese patients with various alcohol intake. A total of 300 patients with histological diagnosed FLD were included: NAFLD ($n=100$) with no/minimal alcohol intake up to 40 g/d/male and 20g/d/female); patients with moderate alcohol intake – 40-80 g/d, ($n=100$) and ALD – with alcohol intake over 80 g/d ($n=100$). The frequency of diabetes was higher in AFLD ($p=0.01$), although insulin resistance (during OGTT, $p=0.045$ and HOMA-IR, $p=0.001$) were found more frequently in NAFLD. AST/ALT ratio ($p=0.001$), GGT ($p=0.001$), CRP ($p=0.002$) and ferritin ($p=0.01$) were higher in ALD. Severe steatosis was observed predominantly in cases with moderate alcohol intake and NAFLD. Advanced fibrosis was present predominantly in alcoholic group ($p=0.03$). In conclusion, the patients with obesity, fatty liver disease and moderate alcohol consumption have similar metabolic and histological characteristics as the patients with NAFLD.

28. Are cardiovascular risk factors different in patients with nonalcoholic fatty liver disease with and without newly diagnosed diabetes mellitus type 2?

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The role of different cardiovascular risk markers in

patients with nonalcoholic fatty liver disease (NAFLD) is discussed, but the influence of newly diagnosed diabetes (DM) in these cases is not yet clear. We evaluated and compared various factors, related with increased CVR in 250 patients with NAFLD with and without newly diagnosed DM. The patients with DM were older ($p=0.001$), and the frequency ($p=0.0001$), and severity of metabolic syndrome ($p=0.001$), the serum levels of blood glucose ($p=0.0001$), glucose/ insulin ratio at 60 min during OGTT ($p=0.0001$), HOMA-IR ($p=0.022$), HbA1c ($p=0.0001$), GGT ($p=0.007$), ferritin ($p=0.024$), and Framingham Risk Score/ SCORE ($p=0.05$) were significantly higher, but the values of platelets ($p=0.01$), QICKI ($p=0.002$), and insulin/glucose ratio at 60 min during OGTT ($p=0.0001$) – significantly lower. In conclusion, in cases with NAFLD without DM there are many metabolic and other factors, associated with increase cardiovascular risk. On the other hand, in NAFLD and newly diagnosed DM the impaired glucose metabolism is related with additional increase of CVR.

29. Microscopic Colitis

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During the 1970s and 1980s, we had a program at our general clinical research center that allowed for admission of patients in whom we studied chronic diarrhea of unknown origin. We followed a study protocol designed according to the understanding of the pathophysiology of intestinal transport and motility. During this time, a number of patients were identified in whom the only abnormality was an inflammatory infiltrate in the lamina propria of the colon, thus, we coined the term "microscopic colitis" (Read NW, Krejs GJ, Fordtran JS, *Gastroenterology* 1980;78:264-271). The condition was defined as chronic diarrhea with inflammation of the mucosa seen on histology but normal macroscopic findings. The lamina propria showed an infiltrate of inflammatory cells, mainly monocytes and plasma cells, analog with neutrophils. Perfusion studies of the colon showed that the absorptive capacity was virtually abolished and in some cases, there was even net luminal gain (secretion). In addition to the chronic diarrhea, there is little consequence for the majority of patients. Morphometrically the inflammatory infiltrate of the lamina propria was found to correlate with the degree of abolished absorption or even secretion, meaning that the lamina propria cells are indeed mediators of inflammation responsible for reduced absorption or secretion. Later, another important finding was added, i.e. intraepithelial lymphocytes, similar to what is described in celiac sprue. The pathologists then suggested that microscopic colitis should be used as a term to include both diseases, i.e. what we called microscopic colitis and what they called lymphocytic colitis, and collagenous colitis, a condition that was described by Lindstrom in 1976, and that shows a collagen table more than 10 μm thick under the epithelial layer. The pathophysiology of microscopic colitis is

poorly understood but immune dysregulation, autoimmunity, drugs and infection all may play a role. Treatment is essentially that for idiopathic inflammatory bowel disease (anti-diarrheal drugs, bismuth subsalicylate, steroids and 5-ASA). In a rare case, immunosuppressive therapy might be indicated. The natural history of microscopic colitis is that it may wax and wane or it may disappear spontaneously or after therapy, whereby 30% show a recurrence after remission. There is essentially no transition to ulcerative colitis or Crohn's disease and it is not considered to lead to colon cancer.

30. Pentane and carbon disulphide breath concentrations: A potential indicator of Inflammatory Bowel Diseases activity

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Tests for inflammatory bowel disease (IBD) monitoring have limited sensitivity and specificity or are linked to discomfort or risk to the patient, therefore necessitating new, non-invasive methods. Selected ion flow tube mass spectrometry (SIFT-MS) provides quantitative analysis of trace gases in human breath which may serve as potential biomarkers of IBD monitoring. To identify which volatile breath metabolites can serve as biomarkers of IBD presence and disease activity. In our pilot project, SIFT-MS was used for analysis of volatile IBD biomarkers in breath. Differences in their concentrations were studied in relation to the presence of IBD and disease activity. The study sample comprised 48 IBD patients (25 female; mean age 30 years; mean disease duration 10 years), 28 with ulcerative colitis (UC) and 20 with Crohn's disease (CD). The control group comprised 33 healthy subjects with a mean age of 22 years. Patients with CD (active or quiescent) had significantly higher concentrations of pentane compared to healthy individuals (115 vs. 61nmol/mol; $p < 0.01$), as was the case for patients with active UC (91 vs. 61nmol/mol; $p < 0.01$). Concentration of carbon disulphide was significantly higher in patients with active CD (111 vs. 50nmol/mol; $p < 0.01$). Conclusion. The results of this pilot study propose breath testing using SIFT-MS to be a potential non-invasive diagnostic and monitoring method in IBD.

31. Medicamentous therapy during pregnancy in IBD patients. Focus on biological agents.

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The data on use of anti-TNF α compounds during pregnancy are still limited. Ten women with IBD (6 with Crohn's disease (CD) and 4 with ulcerative colitis) received

infliximab (IFX) and 3 women with CD adalimumab during pregnancy. Median maternal age (range) at conception was 29 years (22-34) and median disease duration 105 months (7-212). Regarding IFX, 5 women were on maintenance IFX at the time of conception (median 6 months, range 4-16) and continued also during pregnancy and 5 women started IFX during pregnancy (3 women at 2nd and 2 at 3rd trimester). Totally, 5 women were exposed to IFX at conception, 8 during 1st trimester, 10 during 2nd and 4 during 3rd trimester. Median time (range) between last infusion and delivery was 14 weeks (9-21). Of 10 pregnancies on IFX, 9 ended in live births and 1 is still ongoing. There were 7 at-term deliveries with a median birth weight 3200g (2680-3730). Two babies were born preterm at 35th and 34th gestational week. One in mother with active CD, the other pregnancy was purposely ended due to maternal disease other than IBD. No congenital malformation was observed. Similarly, no perinatal complication except for one mild jaundice occurred. **Conclusion:** Biological therapy in pregnant women with IBD seems to be effective and most likely helps to keep the remission of the disease during pregnancy.

32. Screening of chronic diffuse liver diseases among the healthy population in Republic of Moldova

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The death rate from liver cirrhosis in Republic of Moldova is very high. In order to ascertain the true incidence of chronic diffuse liver diseases among the healthy population, a comprehensive clinical, laboratory and instrumental examination was carried out in 1451 people with a specially designed questionnaire. Hepatic pathology was found in 41.01%, including patients with hepatopathy in 51.60%, chronic hepatitis, - 26.72%, steatosis, - 18.32%, liver cirrhosis, - 3.36%. It was established the dependence of the chronic diffuse liver diseases' frequency and nature of gender, age and body weight. Among the surveyed male the chronic hepatitis were the most prevalent. In patients older than 40 years old more often was diagnosed hepatopathy. In overweight patients with chronic diffuse liver diseases with the greatest frequency was detected liver steatosis. The maximum activity of transaminases (ALT, AST) was detected in chronic hepatitis, when the histidase activity - in patients with cirrhosis in comparison with the same indices in other groups with liver diseases and the values of the control group (133 people). Male gender promotes higher values of ALT in liver cirrhosis, chronic hepatitis and hepatopathy, compared with those in women. Age older than 40 years in patients with chronic hepatitis causes more significant increase of liver enzymes compared with data of patients younger than 40 years.

33. Epidemiology, diagnosis and therapy in animal cryptosporidiosis

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Cryptosporidiosis is a parasitic disease; it affects human and animals characterized mainly by digestive disorders, with serious consequences in immunocompromised organisms. The aim of the study was to analyse the evolution of cryptosporidiosis in calves and goat kids, following the prevalence, the influence of age, sex, and seasonal variations of the disease, also to identify the *Cryptosporidium* species through micro-measurements and molecular techniques. A total number of 708 calves aged from one day to eight weeks, originating from 29 cattle farms, and 412 goat kids aged from one day to six weeks, coming from 12 goat farms, from the centre and northwest regions of Romania, were studied. Henricksen stain was used for the highlight of *Cryptosporidium* oocysts, micromeasurements using Adobe Photoshop CS4 software, and the Multiplex PCR technique were used in order to determine *Cryptosporidium* species. In calves, *Cryptosporidium* infection had a prevalence of 27,96%, oocysts were eliminated starting at 4 days old, the highest prevalence being observed between 2-3 weeks old. In goat kids, the prevalence of *Cryptosporidium* infection was 24%, the highest prevalence being observed between 1-2 weeks old.

34. Surrogate markers of insulin sensitivity/resistance in patients with nonalcoholic fatty liver diseases (NAFLD) and chronic hepatitis C (CHC)

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Various simple tests for measuring insulin sensitivity (IS) are used as surrogate markers of insulin resistance (IR) in epidemiological and clinical trials. We assessed and characterized some surrogate markers of IS/ IR based on the interrelations between the concentration of insulin and glucose in fasting state or during standard oral glucose tolerance test (OGTT) as HOMA-IR, 1/HOMA, FIRI, QUICKI, ISI index-comp.(Matsuda), glucose/insulin (GIR) and insulin / glucose ratio –IGR, and insulinogenic index in patients with NAFLD (n=616) and CHC (n=366). IR was observed between 53% and 77% according to different surrogate markers. Measurement of insulin and glucose levels at 60th min during OGTT increased diagnosis of

IR by 26%. No significant differences between the mean levels of IS and IR parameters between NAFLD and CHC with steatosis were found. The mean levels of HOMA, 1/HOMA, FIRI, QUICKI, Matsuda, IGR0 and GIR0 were significantly different in patients with obesity compared to normal and overweight (p= 0.005 – 0.0001). Markers of IS/ IR in patients with NAFLD (p=0.04-0.008) and CHC (p=0.05-0.001) correlated with the histological degrees of steatosis and activity, and stage of fibrosis. In conclusion, these simple surrogate markers of IS/ IR have possibility to evaluate the presence or severity of insulin resistance in patients with NAFLD and CHC, particularly in nonobese and nondiabetic individuals. We recommend HOMA IR test and additionally, 1h and 2h insulin measurements during OGTT as a suitable combination for the complex diagnosis of insulin resistance in NAFLD and CHC.

35. Carbohydrate-deficient transferrin (CDT) in chronic liver disease

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Background. Alcohol remains a major cause of liver disease. Our aim was to assess the CDT as a surrogate marker of alcohol intake and compare it with standard markers.

Methods. 328 subjects were included: 39 healthy controls, 35 alcoholic liver disease (ALD), 92 nonalcoholic fatty liver disease (NAFLD), 77 chronic hepatitis B and C (CHC), 85 liver cirrhosis. CDT serum levels were assessed by a validated HPLC.

Results. The levels of CDT were normal in 265 patients, abnormal in 8 (7 ALD, 1 CHC), indifferent in 55. CDT in ALD was higher than in NAFLD (P=0.005). No relationships were found between CDT and standard markers or data for alcohol consumption. There was a correlation between CDT and sex (r =0.412, p=0.09), AST and GGT (r=0.329, p=0.041).

Discussion. The lack of correlation between CDT and history of alcohol consumption could be explained with a small number of patients and heterogeneous group with ALD. The correlation of CDT and sex is probably due to the bigger part of heavy drinkers in males.

Conclusion. CDT can distinguish ALD and NAFLD. In combination with patients' interview and laboratory markers may improve assessment of alcohol consumption.

36. Metabolic face of nonalcoholic fatty liver disease (NAFLD), chronic hepatitis C (CHC) and B (CHB) in Bulgaria

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It is well known that insulin resistance (IR) and metabolic syndrome (MetS) correlate with the progression of liver disease in patients with NAFLD and CHC, but the comparison between both diseases, and also with CHB is not established yet. We compared the prevalence and signs of MetS, surrogate markers of IR in patients with NAFLD (n=250), genotype 1 CHC (n=366) and CHB (n=334), and healthy volunteers (HV, n=211). MetS was more frequent in NAFLD and CHC compared to CHB and HV (p<0.01). The mean fasting glucose level was higher in NAFLD cases, but frequency of DM was similar in NAFLD and CHC, and lower - in CHB. Impaired fasting glucose/glucose tolerance and diabetes and increased levels of fasting/OGTT insulin, and HOMA-IR were presented mostly in patients with steatosis, including patients with CHC (p<0.001). The mean Framingham risk score was significantly higher in NAFLD (p<0.001) and CHC with steatosis (p<0.01) compared to CHC without fatty liver, CHB and HV. In conclusion the metabolic disturbances of patients CHC with steatosis are similar to those in NAFLD, and more frequent and intensive than in CHB.

37. Superficial necrolytic dermatitis in a dog. A case report

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This report describes a case of superficial necrolytic dermatitis (SND) in an 11 year old mixed breed female spayed dog. The diagnostic was based on the results of the general, dermatological, biochemical and ultrasound examinations, and it was confirmed by cutaneous biopsy. Histopathological examination of skin biopsies revealed superficial and infundibular parakeratotic hyperkeratosis, epidermal pallor (i.e., intracellular edema in epidermal spiny layer and spongiosis) and moderate hyperplasia of the basal epidermal layer. During his lifetime, the patient was kept under supervision. The report includes clinical, hematological and biochemical findings from all this period. As a consequence of poor clinical evolution, at 8 months after the diagnostic was established, the owner solicited euthanasia. In this patient, superficial necrolytic dermatitis

was associated with centroacinar necrotic post-degenerative hepatitis and chronic lymphoplasmacytic pancreatitis.

38. Visceral nociception in irritable bowel syndrome

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Stress-related changes in visceral perception related to both peripheral and central mechanisms play a crucial role in the pathophysiology of irritable bowel syndrome (IBS). Disturbances at every level of the brain-gut axis can affect processes involved in nociception including transduction, transmission, modulation, and perception. Visceral hypersensitivity can occur due to sensitization of primary sensory afferents innervating the viscera, hyperexcitability of spinal ascending neurons receiving input from the viscera, and dysregulation of descending pathways that modulate spinal nociceptive transmission. Spinal sensitization may explain both visceral hypersensitivity and secondary hyperalgesia found in lumbosacral dermatomes in IBS patients that is consistent with the viscerosomatic convergence on spinal neurons. Pain facilitation processes associated with psychological factors and cognitive-affective phenomena are important components in visceral nociception. Functional brain imaging studies in IBS patients have provided evidence of an exaggerated activation of a vigilance network and a failure in activation of regions involved in pain inhibition. Deficits in stress-related descending pain inhibition may result from a long-term dysregulation of the hypothalamic-pituitary-adrenal axis caused by early-life psychological stress and changes in epigenetic programming of glucocorticoid receptor expression. The importance of sex differences in stress-induced alterations of visceral sensitivity is also emphasized. Disturbances in the modulatory balance of pro- and antinociceptive central processing of noxious peripheral input seem to play a pivotal role in the mechanisms contributing to visceral hypersensitivity in IBS.

39. Impact and potential treatment of cirrhotic cardiomyopathy

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Three aspects related to the Cirrhotic Cardiomyopathy are approached: acknowledgment of this entity, the impact on the cirrhosis evolution and the possibility to influence the therapy hereof. The cases admitted in the last six months in an Internal Medicine department are evaluated.

Increased cardiac output was described fifty years ago, but the entity "Cirrhotic Cardiomyopathy" was characterized in 1996 and can be considered a novel disease entity. The definition includes blunted contractile responsiveness to

stress associated or not with altered diastolic relaxation with electrophysiological abnormalities. These findings define a chronic cardiac dysfunction in patient with cirrhosis in the absence of known cardiac disease.

Although the mechanism involved in the hyperdynamic circulation in cirrhosis is unclear, the systolic incompetence and the diastolic dysfunction can be explained. There is a relation between the progression of liver failure and the degree of hyperdynamic circulation. It is under discussion a link between cirrhotic cardiomyopathy and sodium retention in cirrhosis. The Cirrhotic Cardiomyopathy is independent of the etiology of liver disease, the prognosis is unclear, but reversibility is possible.

The therapeutic approach is oriented for the use of the drugs with beneficial effect on the heart and circulation. We cannot recommend a standard treatment. The early use of beta-blockers and aldosterone antagonists delay the negative impact of cirrhosis against heart and circulation. Intrahepatic Vasodilators and Systemic Vasoconstrictors can prevent the development of circulatory disturbance of cirrhosis. The use of Intrahepatic Nitric Donors and Endothelin Antagonists can be a future perspective.

40. Serum erythropoietin – predictive factor for anemia in chronic hepatitis C in patients treated with Pegylat-interferon and Ribavirin

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Background. Anemia is a common complication in chronic viral C hepatitis during the antiviral treatment. The aim of the study is to assess the serum erythropoietin as a predictive factor for iatrogenic anemia during antiviral therapy and for sustained viral response.

Material and method. A prospective, longitudinal and observational study was conducted on 105 patients with chronic viral C hepatitis, with genotype 1b, treated with pegylat interferon alpha-2a or alpha-2b and ribavirin. Serum erythropoietin was determined through ELISA method. Hemoglobin was measured weekly during the first 12 weeks, then monthly until week 72.

Results. Hemoglobin reduction was ≥ 2.5 g/dl in 52.13% of patients. The initial serum erythropoietin was an independent predictive factor for anemia at 12 weeks of treatment regardless the severity of anemia ($p=0.003$). The cut off value ≤ 3.29 mU/ml of initial serum erythropoietin predicts with a 93.7% specificity an anemia with a hemoglobin <10 g/dl at 12 weeks of treatment. The serum erythropoietin isn't predictive for sustained viral response.

Conclusions. Initial serum erythropoietin is an independent predictive factor for anemia after 12 weeks

of antiviral treatment in patients with chronic viral C hepatitis.

41. Psychological profile in patients with Ulcerative colitis and Crohn's disease

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Background and aim. Inflammatory bowel disease (IBD) is a chronic, lifelong disorder that affects primarily young individuals. IBD is associated with increased risk of psychological disorders. The aim of this study was to evaluate the psychological profile of men and women with IBD.

Material and methods. 37 patients with IBD were included – 23 females and 14 males. Psychological profile was evaluated with Minnesota Multiphasic Personality Inventory – 2 (MMPI-2).

Results. Fifty two percent of females had pathological results on "Hysteria" scale against 21% of males ($p=0.013$). When divided by clinical activity, it appeared that in exacerbation females had increased results on "Hysteria" scale, while less males were hysteric ($p=0.028$). During remission there was no gender difference ($p=0.192$).

Conclusion. Women with IBD have clinically significant hysteria, especially in the active state of the disease. Female gender was more affected by this disorder compared to male during exacerbation. In quiescent disease there is no difference between males and females.

42. How severe is chronic hepatitis with HCV genotype 1b? A study of 1220 cases on the waiting list for antiviral therapy in Romania.

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Introduction. Chronic HCV infection represents a public health problem in Romania, with a prevalence of 3.23-4.56%, and more than 5000 patients on the waiting lists for antiviral therapy.

Aim. To perform an evaluation of the severity of chronic HCV infection genotype 1b, and a quantification of patients with low viral load, in order to design a possible short term therapeutic strategy.

Material. Histological assessment and viral load were

performed in 1220 consecutive patients from the waiting list for antiviral therapy in 2009. The severity of chronic hepatitis was assessed by histological evaluation (the necrotic-inflammatory index-Metavir and the Fibrosis score-Metavir). Viral load was measured by PCR, and 400000UI/ml and 600000UI/ml were defined as thresholds for low versus high viral load. We assessed the influence of age, sex, and viral load on NIA and Fibrosis.

Results. The mean age of the patients included was 48 ± 10.69 years old and females predominated (58%). Many of them (60%) were in stage F3, with a high potential for disease progression in the next 10 years (necro-inflammatory activity was moderate to severe in over 90%). Almost half of the patients had low viral load, below 600000 copies/ml. The viral load was significantly associated with the age of the patients ($p < 0,001$) and sex ($p < 0,001$).

Conclusion. Chronic HCV hepatitis in patients on the waiting lists for antiviral therapy in Romania has a high severity with important predictable consequences on the duration of life, complications and treatment costs. The strategy of shortening the duration of treatment would be a benefit for almost 50% of the patients.

Key words: Chronic hepatitis C, HCV genotype 1b, viral load, severity, histological scores

43. Gastric emptying in type 2 diabetes mellitus – obese versus non obese patients

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Background. Gastroparesis is a chronic disorder of gastric motility characterized by delayed emptying of food, in the absence of any mechanical obstruction. The disease, common in diabetes mellitus (DM), is asymptomatic in the first stages for a long period of time, and the symptoms, when present, are highly uncharacteristic. One diagnosis method is the Gastroparesis Cardinal Symptom Index (GCSI), a scale with nine items. The "gold standard" investigation to confirm the presence of postprandial gastric stasis is gastric emptying scintigraphy (GES). Recently, it has been investigated the association between obesity and Gastroparesis symptoms in DM.

Material and methods. We included 50 patients with diabetes mellitus (30F/20M; mean age 61.34 ± 3.61) and 45 controls (27F/18M; mean age 59.15 ± 3.28). Mean duration of disease was $10.22 (\pm 9.67)$; gastric emptying (GE) was assessed using gastric emptying scintigraphy (GES). GE was measured at 0, 1 and 2 hours after ingestion of a ^{99m}Tc sulfur colloid-labeled egg meal. We analyzed the differences between obese and non-obese patients. Upper endoscopy was performed in all subjects to rule out other mechanical causes. Dyspeptic symptoms were assessed using GCSI.

Results. From the total, 24 (48%) patients reported

one or more gastrointestinal symptoms from the scale, 15 (62.5%) of them being obese, 26 (52%) of patients were asymptomatic, 19 (73%) of them being non-obese. The total symptom score for diabetic patients with delayed gastric emptying was $4.13 (\pm 1.08)$, higher than in diabetic patients with normal gastric emptying: $3.81 (\pm 0.97)$ but without statistical significance ($p > 0.05$). The total symptom score for obese diabetic patients with delayed gastric emptying was $4.23 (\pm 1.18)$, higher than in obese diabetic patients with normal gastric emptying: $3.58 (\pm 0.87)$, with statistical significance ($p < 0.05$). From subgroup with abnormal GES, only 14 (51.8%) reported gastrointestinal symptoms. Only 3 from the 9 symptoms had a significant correlation with the results of the GES. From this group, 66% were obese.

Discussions and conclusions. There is only a poor correlation between GES and GCSI scores in our study, in concordance with literature. The diagnosis should not be established based only upon symptoms, as patients with severe gastroparesis may be asymptomatic. Obesity is a strong and independent factor of the presence of at least one symptom suggesting gastroparesis, and also a predictor of the number of symptoms. Our findings are consistent with data from literature for some of the symptoms (early satiety and fullness) and for the fact that in obese patients there is a tendency for more symptoms to appear, as compared to non-obese patients. Obesity should be seen as a risk factor for gastroparesis symptoms.

44. Contrast enhanced ultrasound in the assessment of focal liver lesions

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Ultrasound is an imaging method widely used in clinical practice, which has become the first line in many diseases due to accessibility, a relatively good accuracy, being a safe, non-irradiating, repeatable technique. However the main disadvantage of the method was the impossibility to characterize in detail the vascular structures as compared to other imaging methods, as contrast enhanced computer tomography and contrast enhanced magnetic resonance imaging. The introduction of ultrasound second generation of contrast agents in the clinical practice eliminated this disadvantage and opened a new field for ultrasound.

Focal liver lesions are increasingly being identified due to the widespread use of imaging modalities, especially ultrasonography, but also computed tomography, and magnetic resonance imaging. The majority of these lesions are detected incidentally in asymptomatic patients, raising the question of subsequent investigations necessary for a diagnosis: what investigations to use, how complex and invasive. The information provided by standard ultrasound is most frequently suggestive to a particular type of pathology

without being able to establish a positive diagnosis. On the other hand, contrast enhanced ultrasound (contrast agent of second generation) allows the vascular characterization of the lesion, and according to this pattern we can establish the diagnosis. The usefulness of this technique for the ultrasound diagnosis is demonstrated and also summarized in the available guidelines: Guidelines for the use of contrast agents in ultrasound. January 2004 [1] updated in 2008 [2], The EFSUMB Guidelines and Recommendations on the Clinical Practice of Contrast Enhanced Ultrasound (CEUS): update 2011 on non-hepatic applications [3]. The large multicentre studies available the literature showed also a diagnostic accuracy of CEUS in the diagnosis of liver lesions of 86.1% [4] and 90.3% [5].

Thus whenever a focal liver lesion is detected CEUS should be the first line technique for the assessment of the lesion, being fast, cost effective and with good diagnostic accuracy, thus avoiding delay in diagnosis and the use of other more expensive or invasive diagnostic methods.

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45. Progression of gallbladder and gastric motility defects in obese newborns, preadolescents and adults

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Impaired gallbladder and gastric motility have been associated with obesity in adults. Our group has provided extensive evidences in this respect by using functional ultrasonography [1]. In a large group of children and adolescents living in Bari, a southern Italian city, fasting gallbladder volume was enlarged (suggesting gallbladder stasis) [2] in obese subjects, compared with lean subjects [3]. The timing of appearance of this dysfunction and functional

dynamics of both gallbladder and stomach, however, are unclear [4,5].

Aims. We aimed to investigate appearance and the evolution of motility defects of the gallbladder and stomach according to normal weight and obesity in a cohort of newborns, preadolescents and adults challenged with a test meal.

Methods. Lean and obese subjects from 3 different age groups were studied noninvasively: 50 newborns (1-12 months old, 6 obese), 18 preadolescents (7-8 years old, 7 obese), and 99 adults (22-80 years old, 32 obese) classified according to standard normal tables and body mass index. Changes of fasting/postprandial gallbladder and gastric motility were assessed simultaneously by functional ultrasonography in response to milk (newborns and preadolescents) and to a liquid test meal (adults).

Results. In newborns, fasting and postprandial gallbladder volumes and gastric emptying were similar between obese and lean subjects. In preadolescents, obese subjects had a larger fasting gallbladder volume, with slower postprandial gastric emptying than lean subjects. In obese adults, the most evident dysfunction emerged, with larger fasting and postprandial residual gallbladder volume, and slower postprandial gastric emptying than lean subjects.

Conclusions. Obese subjects display abnormal gallbladder and gastric motility patterns, which first appear in preadolescents and deteriorate in adults. Such abnormalities are absent in obese newborns. Functional ultrasonography [6-8] can detect altered cholecysto-gastric motility at the earliest stage. Our findings suggest an age-related decline of motility, probably secondary to excessive fat and insulin-resistance. Prospective studies are required to relate such abnormalities with metabolic markers and growth.

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46. What is the impact of age on adult patients with inflammatory bowel disease?

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Inflammatory bowel disease (IBD) is a chronic disease that affects both young adults and also the elderly. This article emphasizes the particularities related to age in epidemiology, diagnosis, natural course of the disease, prognosis and therapy of adult patients with IBD. Even the main characteristics in geriatric populations with IBD may not differ much from those in younger patients, distinct problems exist.

The majority of IBD studies were performed on young subjects, younger than 40 years of age. The optimal therapeutic choice in young individuals with IBD is a challenge for the physician who needs to take in account the risk of untreated or suboptimally treated chronic intestinal inflammation, long term prognosis, quality of life, the impact of side-effects of aggressive therapeutic approaches, the impact on pregnancy, as well as personal and healthcare costs.

The diagnosis in elderly patients can be challenging due to the large number of conditions that mimic IBD. The treatment options are those used in younger patients, but a series of considerations related to potential pharmacological interactions and side effects of the drugs must be taken in account. The risks associated with use of some IBD medications may be increased in older patients, but so is the risk of under-treated IBD and surgery.

47. Non-Invasive serrological assesment of fibrosis in non-alcoholic fatty liver disease (NAFLD)

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Aims. We aim to establish the diagnostic performance and reliability of non-invasive, serological and imagistic methods, for the assessment of significant ($F \geq 2$) and severe fibrosis ($F \geq 3$) in NAFLD compared to liver biopsy and to assess the possibility to increase the diagnostic accuracy by combining different scores or by adding an imaging method to the biomarkers assessing the severity of liver fibrosis.

Methods. 98 patients with NAFLD morphologically proven by liver biopsy were prospectively studied. We excluded the secondary causes of hepatic steatosis. The degree of hepatic fibrosis was assessed according to Kleiner criteria: grade 0: absence of fibrosis; grade 1: perisinusoidal or periportal fibrosis; grade 2: perisinusoidal and periportal fibrosis and grade 3: bridging fibrosis and grade 4: cirrhosis. Non-invasive methods used to assess liver fibrosis were: (1) Direct biomarkers (class I): glycoproteins and matrix-metalloproteinase (inhibitors): MMP-2, TIMP-1, YKL-40 and glicosaminoglicani: hyaluronic acid; (2) Indirect biomarkers (class II): APRI, FibroTest, FIB-4 scores and (3) Combination of indirect and direct biomarkers: HEPAScore, FIBROMETER NAFLD, NAFLD fibrosis score (ANGULO), GUHA, BARD, BAAT scores.

Results. The diagnostic values for direct and indirect biomarkers and combination of markers are shown in the table.

Variable	AUC	Cut-off	Se	Sp
MMP-2	0.715	187.4	66.6	73.2
Hyaluronic acid	0.688	21.69	58.3	80.7
YKL-40	0.656	74.8	66.7	68.6
TIMP-1	0.607	261	58.3	85.2
Fibrotest F2	0.612	0.3	43	79
Fibrotest F3	0.624	0.4	34	96
Hepascore	0.69	0.07	91.3	45.3
Fibrometer	0.66	19.74	84.2	47.5
GUHA	0.66	2.26	52.6	87.9
NAFLD fibrosis score	0.65	2.57	89.5	40.4
BARD	0.63	3	33.3	94.2
FIB-4	0.60	0.47	100	22.8
BAAT	0.57	>1	87	33.3

Synchronous association between serological scores increase slightly the diagnostic accuracy: MMP-2 + TIMP-1 + YKL-40 + Hyaluronic acid (AUC: 0.80).

Conclusions. Non-invasive models have modest accuracy for determining significant fibrosis. The best direct biomarkers is MMP-2 followed by Hyaluronic acid, of indirect markers the best value is obtained with FibroTest and of combination of direct and indirect biomarkers HEPAScore was in the first position. Synchronous associations increased the diagnostic performance.

48. Comparison between the serum level of endothelin ET 1-21 in patients with pulmonary arterial hypertension in patients with liver cirrhosis versus patients with left heart disease

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Background. Endothelin 1 (ET-1), the most potent vasoconstrictors known to date, is a biomarker of disease severity in patients with pulmonary arterial hypertension (PAH), a high level being correlated with a poor survival.

Purpose. To compare the serum levels of ET 1-21 in patients with PAH due to cirrhosis and due to left heart disease.

Material and methods. During January 2007 - December 2008, 50 patients were included in the study. Group 1 consisted of 26 patients with PAH (18 males), age 62.83±8.86 years, diagnosed with liver cirrhosis. Group 2 included 13 patients (8 males), age of 67±13.44 years, diagnosed with PAH secondary to left heart diseases. The presence of PAH was assessed by Doppler transthoracic echocardiography, using the systolic pulmonary arterial pressure (sPAP ≥ 30 mmHg). The serum level of ET1-21 was determined using the ELISA method (NV < 0.02 fmol/ml).

Results. Among patients with liver cirrhosis, 14 had mild PAH, 12 had moderate PAH. In group 2, 7 patients had mild PAH, 6 had moderate PAH. No patient had severe PAH. Patients in group 1 had a significantly higher level of ET1-21, irrespective of the severity of the PAH: 1.68±0.81 vs. 1.2±0.27 fmol/ml, p=0.05 for patients with mild PAH, 2.02±0.85 fmol/ml vs. 1.21±0.25 fmol/ml, p=0.009, for patients with moderate PAH.

Conclusion. Patients with liver cirrhosis and PAH have a higher levels of ET1-21 compared to patients with PAH secondary to left heart disease. Its prognostic significance should be tested on a larger population and on a longer timeline.

Introduction. Immunological mechanisms play a key role in pathogenesis of chronic viral hepatitis (ChVH). Various psychological, social and biological mechanisms are involved in developing of depression in these patients. We supposed the influence of immunological disturbances on tryptophan depletion and developing of depression in patients with ChVH. Aim. To measure the tryptophan blood levels in depressive and non-depressive ChVH patients, depending of the circulating immune complexes (CIC) rates and the transaminases activity.

Material, methods. We measured the tryptophan levels in the blood samples (spectrum analysis) in 147 patients with ChVH (B, C and/or D), the average age – 37.3±0.89 years, 84 (57.14%) men. Depression was revealed using the Hamilton Rating Scale for Depression (HDRS-21). We analysed these data depending of transaminases activity: group A1 <2N of ALT activity (n=83), and group A2 >2N of ALT (n=64), and depending of the CIC rates (n=68 elevated and n=79 normal). All parameters were compared with healthy people tests results – control group (CG), n=29, average age 30.97±0.89 years.

Results. Depressive scores were obtained in 85.03% (125) of patients ChVH versus 13.79% (4) in CG. The tryptophan levels average in ChVH was lower than in CG (13.52±0.50 mcM/l vs. 21.02±0.96 mcM/l, p<0.001). Tryptophan depletion was more important in depressive patients (11.79±0.42 mcM/l) in comparison with nondepressive (23.31±0.64 mcM/l, p<0.001). In nondepressive patients this parameter did not differs from data in CG. Also we determined a lower tryptophan levels in A2 patients in comparison with A1 (12.57±0.63 mcM/l vs. 14.75±0.80 mcM/l, p<0.05), although the transaminases activity was not influenced by depressive scores. Tryptophan level was lower in patients with positive CIC rates (10.91±0.53 mcM/l) than CIC negative (15.76±0.73 mcM/l, p<0.001). The depression in CIC positive patients was more prevalent (98.53%), and HDRS scores were higher (17.81±0.71) versus CIC negative (73.42%, p<0.001, and 11.92±0.65, p<0.001).

Conclusions. We determined the high prevalence of depression in ChVH. We suppose that developing of depression in ChVH involves the immunological mechanisms, which are responsible for the tryptophan reduction and contribute at maintenance of cytolytic processes.

Key words: chronic viral hepatitis, depression, circulating immune complexes, tryptophan.

49. The possible involvement of immunological mechanisms in tryptophan blood-level depletion and developing of depression in patients with chronic viral hepatitis

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50. Four year follow-up of patients with IBS

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Introduction. In literature, few studies were published focusing on the long term follow-up of patients with IBS.

We looked for the evolution of IBS patients in a single tertiary center.

Methods. This is a retrospective study based on the survey of patients' records. 114 patients diagnosed with IBS based on Rome III criteria, (29 men and 85 women, aged 19-85 years, mean age 43.45 years,) were included. The sample was followed-up for a period of 4 years (2008-2011). Following items were monitored: symptoms, associated diseases, social factors including urban/rural life environment, therapy) and evolution of the symptoms.

Results. Common complaints were: abdominal pain, bowel movement disorders, bloating, and flatulence. Diarrhea was the main symptom in 38.5% of patients, while the other 61.5% of patients presented with mainly constipation. Other common symptoms were: eructation, headache, nausea, asthenia, heart palpitations. The most frequent diseases associated to IBS were: depressive syndrome, hemorrhoidal disease and giardiasis. Other associated diseases were vesicular gallstones, cholecystectomy, colon polyps, diabetes, gastritis, spinal arthrosis, spinal discopathy, obesity, dyslipidemia, hypothyroidism, nodular goiter, osteoporosis, coronary heart disease, hypertension, and kidney stones. Thirty three (29%) of 114 studied patients received monotherapy (trimebutin, mebeverin, or probiotics), while the others were treated with combined therapy (anxiolytics, PPIs, NSAIDs, spasmolytics). Regarding the evolution of disease, about 50% of patients experienced a favorable evolution under medical treatment, 40% had a fluctuating evolution and 10% still complained symptoms. Environment of origin: 37 rural and 77 in urban.

Conclusion. The main three symptoms were represented by abdominal pain, bowel disorders and bloating. Patients receiving monotherapy with trimebutin or mebeverin had a better outcome as compared to those treated with probiotics. The highest rate response has been encountered in patients treated with trimebutin + mebeverin + anxiolytics. Further studies are needed to analyze the link between IBS and some associated diseases.

51. Extended resections in liver and biliary tumors

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Background. Liver surgery plays a major role in the oncological treatment of liver primary and secondary tumors, with a continuous increase of selected patients and a widespread of surgical indications.

Aim. To evaluate the influence of a number of factors which allowed an increasing number of liver surgery in a general surgical setting.

Method and Patients. Since 2003 the number of patients who underwent liver surgery for primary and especially secondary tumors has constantly increase from 4 /year to more than 20/year. Moreover surgical procedures have been extended from simple liver resections to large hepatectomies. This surgical progress was sustained by progresses made in general anesthesia and especially in postoperative intensive care, and by new surgical technologies.

Results. The postoperative stay has been almost constant from 2003 to 2012, despite a more aggressive and extended surgery with a mean of 7.2 days. The intraoperative blood loss was also relatively constant with a mean of 430ml per liver resection. However, when radiofrequency devices have been used the mean blood loss dropped to 250ml. There were just two postoperative deaths, both in patients with liver cirrhosis. The mean number of liver segments resected during one procedure passed from 1.2 to 2.8.

Conclusion. Extended liver surgery for tumors became safer with the surgeons' increased experience, the more accurate anaesthesia and postoperative care and supported by progresses in surgical technology.

52. Oncologic endosonography – present practice and perspective

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Endosonography is a useful method for correct evaluation of detection, staging, cytology sampling and therapeutic approach guidance of different tumors. Its role in digestive oncology it is focused on the tumors of upper gut, rectum and bilio-pancreatic region.

The most advances in endosonography were obtained in the field of biliopancreatic tumors, due to development of new type of needles for sampling. This increased the rate of tumor diagnostic when sampling to more than 90% and, in some circumstances, it allowed to obtain tissular fragments from tumors.

The main progress was done in the field of therapeutic approach, by guiding the palliation of jaundice, palliation of pain, introduction of fiducial placement for guiding radiotherapy. The latest therapeutic possibility consists in direct intratumor injection of different substances for their destruction.

For research purposes, tumor sampling allowed a better understanding of carcinogenesis process. Our experience includes mainly bilio-pancreatic oncologic pathology, with accuracy in fine-needle aspiration of 87%, without differences between sampling for patients with nodule into a pancreas with chronic pancreatitis or without chronic pancreatitis. Also, the neurolysis of celiac plexus for pain palliation in pancreatic cancer showed encouraging results.

53. Bariatric surgery - a viable option for the treatment of obesity

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Bariatric surgery continues to be the most sustainable form of weight loss available to morbidly obese patients and it has established an acceptable safety profile, with respect to morbidity and mortality. With the number of elective bariatric cases growing in recent years, it is unsurprising that results have improved and better data are emerging regarding improvement of obesity-related comorbid conditions, including type 2 diabetes mellitus remission. However, not all procedures are the same. Restrictive procedures, malabsorptive procedures, or a combination of both procedures have their own risks and benefits. Which procedure to choose has to do with many patient selection factors. Additionally, ample evidence suggests that bariatric surgery may increase longevity, particularly through reducing cardiovascular deaths. Although the specific mechanisms involved in the remission of these medical conditions remain to be fully elucidated, it has become clear that bariatric surgery has established a significant role in the treatment of comorbidities associated with obesity.

54. Intracavitary applications of contrast agents in hepatogastroenterology

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1. Introduction

Intracavitary administration of SonoVue is an off-label, extravascular application of contrast agents. We will present our experience using this technique in hepatogastroenterology.

2. Biliary ducts and biliary obstruction

The utility of CEUS cholangiography performed through an echoguided inserted catheter was assessed in patients with obstructive jaundice.

Patients and methods. 30 patients (18 males, 12 females, mean age 68, range 43-90) with malignant biliary obstruction (17 –hilar, 8– mid common bile duct, 5 distal) in whom endoscopic biliary drainage was not possible or the inserted stent was occluded were sent for percutaneous biliary drainage (PBD). After the insertion of a 7-8 F catheter into the biliary tree, 2 drops of SonoVue (Bracco, Italy), were mixed with 100 ml saline and then injected through the catheter in the biliary tree. The liver was scanned with harmonic imaging with a low mechanical index trying to

assess the anatomy of the biliary tree, location of the catheter tip, communication of left and right biliary tree, depiction and length of stenosis (in hilar and middle obstructions), patency of the endoscopically inserted stent, and dislodgment of the catheter. The parameters were then compared with those obtained after a cholangiography through the catheter.

Results. CEUS cholangiography has a sensitivity of 100% in assessing the location of the catheter tip (30/30), communication of left and right biliary tree in the case of hilar obstruction (17/17) and dislodgment of the catheter with intraperitoneal biliary leak (3/3). In all 4 cases with previous stenting CEUS cholangiography was able to demonstrate the patency of the stent. The depiction and length of stenosis was possible in only 10 of 25 cases (40% sensitivity).

Conclusions. CEUS cholangiography is a very good technique to assess the anatomy of the biliary tree. Through the information obtained it can play an important role after percutaneous biliary drainage and in planning a subsequent biliary intervention (second PBD or percutaneous stenting).

3. Characterization of hepatic and perihepatic fluid lesions.

We have investigated the role of intracavitary application of contrast agents (ICAC) in intra and perihepatic fluid lesions in terms of lesion delineation, establishing a possible communication to the biliary system and certifying a complication.

Patients and methods. We have enrolled 15 patients- 11 with intrahepatic lesions - 5 abscesses (3-7 cm in size), 3 biliary cysts (5-7 cm), 3 fluid collections after hydatid cyst surgery (6-8 cm in size) and 4 with perihepatic fluid collections (3-10 cm in size) after surgery (3 laparoscopic colecystectomies for biliary stones and 1 segmental liver resection for hepatic tumor). In 10 cases the fluid has reaccumulated after a first aspiration and lavage. Two drops of SonoVue were mixed with 50 ml saline and then injected through one catheter (8 cases) or 18G needles (7 cases) in the fluid lesions.

Results. The ICAC results in a better delineation of the cavity in complex fluid lesions (2 multilocular abscesses). It also demonstrates the communication of the collection to the biliary system in 10 pts (the remained 5 -the 3 simple liver cysts and 2 liver abscess did not communicate with the biliary tree) and could also appreciate the size of the biliary fistula. In all patients with perihepatic collection a large fistula to the biliary system was demonstrated and all patients were treated by endoscopic sphincterotomy. In 1 pt the ICAC depicts the dislodgment of the catheter from the abscess with intraperitoneal leakage.

Conclusions. ICAC through a catheter or needle is a very useful technique to depict the anatomy of hepatic and perihepatic complex fluid collections and to monitor the drainage. It can also easily demonstrate the presence and size of a communication to the biliary system with important therapeutic consequences.

4. CEUS for imaging of fistula

CEUS has been proven to be effective in the detection and

classification of fistulas with various locations (rectovaginal fistulas via a transvaginal approach, vesicointestinal fistulas via a transabdominal approach and anal fistulas via the transrectal approach.

5. CEUS for imaging of the digestive tube

Large amounts of saline with small quantities of CA may be introduced in the stomach or large bowel. The main applications are: evaluation of gastric and colic stenosis due to tumors, diagnosis of diverticulosis and assessment of the patency of endoscopically inserted stents.

55. What is new in the exploration of esophageal motility using High Resolution Manometry with Pressure Topography

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As in other pathologies, esophageal symptoms are not always the consequence of an organic disorder. Upper gastrointestinal endoscopy is often normal, even in gastro-esophageal reflux disease (GERD). In these situations esophageal manometry can tell us more about the esophageal motility and upper or lower esophageal sphincter function, which could explain patients' symptoms.

Conventional manometry was replaced in the last years by high resolution manometry with pressure topography (HRM-PT). Motility esophageal disorders were redefined, mostly by the extensive work of the Chicago group, based on new parameters (such as distal latency, integrated relaxation pressure, etc.) that were identified as being more relevant. Esophageal contractions were reclassified, and based on observation of large groups of patients, the group of ineffective esophageal motility was replaced with weak peristalsis, which was found to be more common as previously thought, especially in patients with dysphagia. Achalasia was reclassified in three subtypes, which are relevant taken into account the different response to therapeutically approaches of these subgroups.

Some advantages of this new technique are that the esophageal motility can be assessed at every level of esophageal body during the same swallow, the acquisition of data requires maximum 20 minutes, so it's better tolerated by the patients; the recordings can be analysed in 10-15 minutes, and in addition there is a high number of data obtained. HRM-PT is a standard procedure in tertiary centres in patients with achalasia, scleroderma, GERD or dysphagia. It is also performed before bariatric surgery, or after anti-reflux interventions. This presentation will illustrate shortly some of these changes brought in the field of esophageal motility disorders by HRM-PT.

56. Endoscopic diagnosis and treatment in early gastric cancer

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Diagnosis of early gastric cancer is difficult. Elaborating an assessment and selection protocol of patients with high risk would determine more frequent detection of early gastric cancer. Narrow band imaging, magnifying chromoendoscopy and others techniques are news endoscopic techniques which provide a good detection rate of premalignant lesions and early gastric carcinomas increasing indirectly the survival. These techniques allow the differentiation of malignant lesions from the benign ones, increases the detection of flat and uneven neoplasias and some of them contribute with certain elements for the assessment of in depth invasion. The risk of lymph node invasion increases with the in-depth invasion of the neoplasia. The tumors that invade the superficial layers are usually treated via endoscopy. If the invasion is located in the middle layers, the choice of either surgical or endoscopic treatment depends on the location of the neoplasia, the type of cancer, the macroscopic endoscopic aspect, the patient's performance status and last but not least, the endoscopist's experience. Endoscopic mucosal resection is a technique of first choice which provide good results regarding efficacy and 5-years survival but in small lesion usually under 20mm in diameter. Endoscopic submucosal dissection is a new technique which increased a lot the rate of one fragment endoscopic excision but is difficult to performing and with higher complications than endoscopic mucosal resection. A good selection of tools, patients and techniques are needed in diagnosis, evaluation and treatment of patients with early gastric cancer.

57. Biliary duct tumors: advances in diagnosis and palliative treatment

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Cholangiocarcinomas include the tumours of the intrahepatic, hilar and extrahepatic biliary ducts. Chronic inflammation and biliary stasis are important risk factors in the development of cholangiocarcinoma.

Although transcuteaneous ultrasonography, computed tomography and magnetic resonance greatly improved in performance, two major problems have not been completely

solved yet: first, the differentiation of malignant and benign bile duct strictures, and, second, the assessment of the resectability of carcinomas underlying biliary strictures. The patients' management depends of the benign or malignant nature of the subjacent biliary stricture.

Endoscopic retrograde cholangiopancreatography (ERCP) is the most valuable tool for further diagnosis as well as temporary or definitive therapy in patients with biliary strictures. Intraductal ultrasound (IDUS) represents a valuable adjuvant of ERCP, allowing the biliary duct wall evaluation. Moreover, particularly in carcinomas of the bile duct bifurcation and the middle part of the common bile duct, IDUS is superior to EUS in terms of local tumor assessment. The probes can be advanced into these structures in a transampullary fashion under fluoroscopic control, or over a guidewire.

The diagnostic accuracy ranged between 76 and 92% according to the nature of the biliary stricture in a prospective study conducted in our department (56 cases, 10 benign biliary strictures and 46 malignant biliary strictures). Newly developed ultrasound probes attract special interest as these probes are small enough (diameters of 1.1–2 mm) to be inserted through the working channel of a duodenoscope during ERCP into either the biliary or the pancreatic duct. Biliary sphincterotomy is not mandatory for IDUS examination. We performed endoscopic sphincterotomy in about 20% of cases. The mean time for probe insertion and intraductal ultrasonography (IDUS) was 6:30 min. The parameters and the characteristics of the malignancy score were: - thickness of the biliary duct wall; - hypoechoic mass; - inhomogeneous pattern.

Intraductal ultrasonography is feasible, easy to perform and in selected cases can bring useful data for the management of the biliary and pancreatic pathology. It is still a technique reserved for specialised centers.

In advanced cholangiocarcinoma endoscopic stent insertion represents the first choice of palliation. Decreasing the malignant biliary obstruction greatly improves the patients' quality of life but with no influence on patients' survival.

Photodynamic therapy is a new technique used in the treatment in advanced cholangiocarcinoma together with the stent insertion. It is a minimal invasive technique which improves the patients' survival and quality of life, with very few complications (similar to ERCP – infection, bleeding, perforation). Adverse effects are minimal and include skin photosensitivity.

58. Oncologic diagnostic and therapeutic endoscopy – present practice and perspective in digestive cancers

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Digestive cancers are one of the leading causes of morbidity and mortality in humans.

Significant progress was done in the last years in early diagnosis of digestive cancers. Endoscopic resection of early digestive tube cancers has become the gold standard. Staging of early cancer is of maximum importance, invasion in submucosa has an increased risk of lymph node invasion, an indication for surgical resection. Techniques of resections have evolved, submucosal dissection is considered the best method, but is time consuming, with the higher early complication rate. Piecemeal resection and mucosectomy are largely used by endoscopists, being less technically demanding, but with a higher recurrence rate. Resection can be replaced or associated with ablation techniques, depending on the digestive tube segment. Endoscopic followup is mandatory after resection, protocols take in consideration, the digestive tube segment, diameter, histology, depth of invasion and type of resection of the lesion.

Except for colonic cancer, screening protocols are not largely used for early diagnosis, but increased accesability and acceptance for endoscopy and improvement of quality of image, increases the diagnosis of early digestive cancers. Capsule endoscopy is a promising screening tool due to its high acceptance by patients. Confocal microscopy will maybe not replace histologic examination, but is able to guide on site the endoscopic treatment. Its use is still reduced because of high costs and long examination time.

At the opposite site of digestive oncology, endoscopic palliative treatment tends to replace surgical palliation. Staging is again the main issue before endoscopic palliation.

59. Alcohol consumption and C-reactive protein levels in chronic liver disease

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Aims. This study was conducted to determine the association of alcohol with C-reactive protein values on a group of patients with chronic liver disease.

Methods/Patients. The relationship between alcohol consumption and CRP was measured on a total of 109 patients with chronic liver disease at first diagnosis (78 males, 31 females, range 35- 61 years) were excluded portal hypertension syndrome, viral etiology and presence of inflammatory conditions. The main aspects studied were stratification categories of alcohol consumption in relation to the number of drink (standard international unit of alcohol) and the relationship between alcohol consumption, CRP values and liver disease.

Results. Consumers that drink up to 10 times per month, showed CRP maximum values of 1.5 mg/dl, in comparison with consumers that consume up to 30 drinks/month and those with more than 60 drinks per month, with maximum

CRP values of 5.5 mg/dl, and 12mg/dl respectively. In multivariate analysis, the relationship between alcohol consumption and CRP remained significant ($p < 0.0001$) and in patients with score ≤ 8 threshold but with high scores questions that measures the amount and frequency of alcohol consumption.

Conclusion. A moderate and high frequency alcohol consumption, is associated with a high probability to elevated levels of C-reactive protein, in patients with chronic liver disease.

60. Advanced training in hepatogastroenterology: digestive oncology. WGO and EBGH project.

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The statistics and publications of WGO, IARC, GLOBOCAN revealed the digestive cancer burden in the world. WGO has created the Digestive Oncology Task Force in order to coagulate the world's information and practice regarding digestive cancers. An advanced training in Digestive Oncology was proposed for hepatogastroenterologists by the WGO and the European Board of Gastroenterology and Hepatology (EBGH), in order to enhance their knowledge and skills beyond the expertise obtained during normal hepatogastroenterology (HGE) residency program. Some HGE- trainees may wish to further specialize in the management of patients with digestive cancers. For this, additional training is required in oncologic endoscopy, medical oncology, or both. Trainees partaking in the Digestive Oncology Advanced Module should complete one year in a Digestive Oncology Centre. Training involvement in a one year Digestive Oncology Advanced Module pre-supposes that the basic training in HGE was completed. The increasing confrontation with digestive cancers is a reality in Romania too. Redesigning the current Romanian HGE curriculum, with emphasis on digestive oncology, should be part of international developments. HGE-specialists could assume a greater role in the multidisciplinary management teams and in the direct treatment of patients with digestive cancer.

Key words: hepatogastroenterology - digestive oncology curriculum - WGO Digestive Oncology Task Force

61. Dramatic decrease in prevalence of Helicobacter Pylori and peptic ulcer disease over a 17-year period

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Background. It has been suggested that the incidence of Helicobacter pylori (*H. pylori*) negative peptic ulcer disease (PUD) has increased in the latest years.

Aims. To investigate the prevalence of *H. pylori* and PUD and to compare etiology, gender and age distribution in PUD over a 17-year period in our academic center.

Methods. Medical and endoscopic records were retrospectively reviewed with similar data obtained over a 17-year period at the same endoscopic unit with regard to *H. pylori* status and prevalence of endoscopically proven PUD.

Results. The rate of *H. pylori* positivity decreased significantly from 1995 to 2011 (42% in 1995; 32% in 2000; 25% in 2005 and 19% in 2011, $p < 0.05$). The prevalence of PUD, compared to all endoscopic examinations decreased significantly over a 17-year period: 125 PUD (during 1389 upper gastrointestinal endoscopic examinations) were found in 1995, 141 PUD/2014 endoscopies in 2000, 99 PUD/2449 endoscopies in 2005 and 174 PUD/3220 endoscopies in 2011 (9%, 7%, 4% and 5% of total endoscopies, respectively, $p < 0.05$). The rate of *H. pylori* negative PUD increased gradually from 1995, 2000, 2005 to 2011 (13%, 33%, 36% and 49%, respectively, $p < 0.01$). No significant differences were observed with respect to age and gender distribution between *H. pylori* positive and negative PUD.

Conclusion. Endoscopic *H. pylori* prevalence has decreased significantly over a 17-year period in our high-volume academic endoscopic center. Endoscopic PUD also has decreased significantly from 1995 to 2011. We found a significant increase in the incidence of *H. pylori* negative PUD.

62. Assessment of the risk factors in patients with upper digestive bleeding

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Aim: Assessment of the risk factors associated with rebleeding and death, respectively, in patients with non-variceal upper digestive bleeding.

Material and method: From a batch of 1,326 patients with non-variceal upper digestive bleeding admitted in the Gastroenterology Department of the Emergency County Hospital Timisoara, 466 women and 860 men, mean age 60.2 years (17-96 years), we selected 742 cases in which there were evaluated, along numerous clinical, biological and endoscopical parameters, also the Rockall and Baylor risk scores. We assessed the possible risk factors associated with rebleeding and death of the patients with upper digestive bleeding, using the statistical method of multivariate regression.

Results:**Table I.** The assessment of the factors associated with death

Independent variables	P value
Baylor score	<0.0001
Rockall score	<0.0001
Haemoglobin value	0.719
No. of blood units	0.013
No. of ulcers	0.006
Age	0.120
Aspirin consumption	0.005
Anticoagulant medication	0.929
Pulse >100 bpm	0.312
Systolic BP <100 mmHg	0.0001
Rebleeding	0.314
Active bleeding at endoscopy	0.286
Clot washing	0.246

Table II. The assessment of the factors associated with rebleeding

Independent variables	P value
Baylor score	0.742
Rockall score	0.001
Clot washing	0.002
No. of ulcers	0.003
No. of blood units	0.0004
Aspirin consumption	0.417
Anticoagulant medication	0.400

In the case of the deceased patients (n=49), Rockall score was significantly higher in comparison with the patients that survived (n=693) (8.3 vs. 5.1, p<0.001)

Conclusions: The parameters associated with the risk of death were represented by the high Rockall and Baylor scores, high number of blood units needed, high number of ulcers, aspirin consumption and shock at admission. Regarding the rebleeding, the risk factors were represented by high Rockall

score, leaving the clot at endoscopy, high number of ulcers, as well as high number of blood units needed.

63. Small intestinal bacterial overgrowth syndrome and irritable bowel syndrome.

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Aim. Searching for the role of Small Intestinal Bacterial Overgrowth in the pathogenesis and symptoms in patients with Irritable Bowel Syndrome.

Method. 44 patients with irritable bowel syndrome according to Rome III criteria were screened for proximal small intestinal bacterial overgrowth by glucose hydrogen breath test. Positive patients receive a 10 day course with the antibiotic rifaximin and 6 patients were retested 4 weeks after completing the treatment.

Results. SIBO was found in 7 patients out of 44 (16%) - 6 females (86%). All patients rifaximin and retested 4 weeks after the end of treatment were found negative for small intestinal bacterial overgrowth.

Conclusions. Rifaximin effectively normalized the glucose breath test by possibly counteracting the small intestinal bacterial overgrowth. Whether such therapeutic approach is associated with symptom improvement in the long term in patients with irritable bowel syndrome, requires additional studies.

Key words. Irritable bowel syndrome- Small Intestinal bacterial overgrowth- Hydrogen breath tests.

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