EAGEN

Bridging Meeting in Gastroenterology

Cluj-Napoca, November 27-29, 2025

Program and Abstracts

ABOUT EAGEN

Founded in 1970, the European Association for Gastroenterology, Endoscopy & Nutrition (EAGEN) has been a leader in advancing gastroenterology through CME-accredited education and collaboration. A founding member of United European Gastroenterology (UEG), EAGEN organizes innovative, interdisciplinary events, including its annual Bridging Meeting, which provides a platform for young researchers. With around 3,000 GI professionals attending its events each year, EAGEN continues to drive education and innovation in the field of gastroenterology.

HISTORY OF THE SOCIETY

The European Association for Gastroenterology, Endoscopy and Nutrition (EAGEN) was founded in 1970 by Professor Hiroshi Oshima, a surgeon from the Nippon-Ika-University in Tokyo, Japan. He introduced the gastrocamera technique, which was successfully used in Japan on a large number of patients and allowed early recognition of carcinoma of the stomach. This technique was the focus of interest in the early 1970s. The original name of the Society was ´European Society for Gastrocamera Diagnosis´. Annual meetings followed and abstracts were published in ´Aktuelle Gastroenterologie´.

In 1972, Professor G. Nava of Rome became the new President and he was followed by Professor H. Reissigl of Innsbruck. In addition to the annual conference, postgraduate courses were held in several countries. The Society published a number of monographs, particularly on stomach cancer. In 1979, the Society changed its name to `European Society for Gastrocamera Diagnosis and Endoscopy´. In 1980, Professor Y. van Maercke of Antwerp became President and was followed by Professor K. E. Hampel of Berlin. The 18th annual congress was held in Berlin and attracted more than 1000 participants. Topics expanded during the yearly events and in postgraduate courses to include endoscopy covering the whole spectrum of gastroenterology. Consequently, the society was renamed the ´European Association for Gastroenterology and Endoscopy´ (EAGE). After Professor G. Bianchi-Porro organized the annual society event in Milan and Sirmione, the membership of the society grew to around 500 by 1990. Professor G. J. Krejs of Graz, Austria, hosted two annual meetings in 1989 & 1990 in Graz & in Vienna under the name ´European Digestive Disease Week´ (EDDW). This event was the first European multi-society meeting in gastroenterology. It was created by the EAGE as the European counterpart to Digestive Disease Week by the American Gastroenterological Association.

The second EDDW was organized by Professor G. N. J. Tytgat in Amsterdam (1991) attracting over 2000 participants. With these two conferences (1990 & 1991) the EAGE had built the foundation of the United European Gastroenterology Week (UEGW). The UEGW was initially organized by the EAGE and six other European sister societies pertaining to gastroenterology, hepatology and endoscopy [Association des Sociétes Nationales Européenes et Méditérranéenes de Gastroénterologie, Collegium Internationale Chirurgiae Digestivae (European Chapter), European Association for the Study of Liver, European Pancreatic Club, European Society for Gastrointestinal Endoscopy and European Society for Pediatric Gastroenterology and Nutrition.]

Since 1992, when EAGE handed over its annual congress to allow for a joined UEGW, the EAGE has played a leading role in education in gastroenterology as part of the UEGW and throughout the year. In recognition of the important role of nutrition in 2011, the EAGE added N-utrition to its name and became the EAGEN (European Association for Gastroenterology, Endoscopy and Nutrition).

EAGEN's mission remains to be a leader in EDUCATION in GASTROENTEROLOGY, providing high quality, interactive and interdisciplinary education to about 3000 GI experts every year. EAGEN is proud to provide communication and networking platforms to the next GI generation throughout its 10-15 events across Europe and in particular with its traditional Bridging Meeting in GI.

PRESIDENTS

2024 – Jan Tack, Leuven
2020 – Dan Dumitrascu, Cluj
2018 – Davor Stimac, Rijeka
2016 – Tamara Matysiak-Budnik, Nantes
2014 – Tomica Milosavljevic – Belgrade
2012 – Jaroslaw Regula – Warsaw
2010 – Petr Ditě – Brno
2008 – Zsolt Tulassay – Budapest
2006 – Giovanni Gasbarrini – Rome
2004 – Christoph Beglinger – Basel
2002 – Lars Lundell – Gothenburg
2000 – Peter Malfertheiner – Magdeburg
1998 – Michael J. Farthing – London
1996 – Jean Paul Galmiche – Nantes
1994 – Rudolf Arnold – Marburg
1992 – Juan Malagelada – Barcelona
1990 – Guido N. J. Tytgat – Amsterdam
1988 – Guenter J. Krejs – Graz
1986 – Gabriele Bianchi-Porro – Milan
1982 – Klaus E. Hampel – Berlin
1980 – Yvan M. van Maercke – Antwerp
1976 – Klaus Heinkel – Stuttgart
1974 – Hans Reissigl – Innsbruck
1972 – Giovanni Nava – Rome
1970 – Hiroshi Oshima – Tokyo, Berlin

SECRETARY - Shirin Charles

Thursday – 27 November

18:00 – 18:15 Opening

18:15 – 18:45 Cultural presentation: *Oana Habor: The History of Medical Education in Cluj: Institutional Evolution and Academic Heritage (1775-2025)*

18:45 – 19:15 Quintet Fantastique Chamber Concert

19:15 – 21:00 Welcome cocktail

Friday – 28 November

Session of the youth and of the Bridging Meeting alumni

09:00 – 09:05 Introduction: Peter Malfertheiner, Jan Tack, Dan Dumitrascu

Upper gut

Chairs: Simona Bataga, Alexander Link, Vasile Drug

09:05 – 09:13 Pantea Monica, Targu-Mures: *Predictive Value of Clinical and Endoscopic Scores in Upper Gastrointestinal Bleeding Outcomes: A Retrospective Study*

09:13 – 09:17 Discussant: Vasile Drug

09:17 – 09:25 Aleksandra Sztogrin-Pluta, Warsaw: *Endoscopic treatment for primary neoplasia of the gastroesophageal junction: an outcome study*

09:25 – 09:29 Discussant: Simona Bataga, Targu-Mures

09:29 – 09:37 Diana Floria, Iași: *The non-invasive diagnostic of GERD and the role of pepsin*

09:37 – 09:41 Discussant: Jan Tack, Leuven

09:41 – 09:49 Andrei Picos, Cluj-Napoca: *Atomic force microscopy analysis of the dental tissues of surfaces exposed to low oral pH in GERD*

09:49 – 09:53 Discussant: Vasile Drug, Iasi

09:53 – 10:01 Vera Ciornolutchii, Cluj-Napoca: *Microbiota of the esophagus: systematic review*

10:01 – 10:05 Discussant: Vladimir Milivojevic, Belgrade

10:05 – 10:13 Sabrina Munteanu, Targu-Mures: *H. pylori Infection and Prolonged PPI Use: Endoscopic and Histologic Perspectives*

10:13 – 10:17 Discussant: Christian Schulz, Munich

10:17 – 10:25 Radu Farcas, Cluj-Napoca: *Gastric juice MicroRNA as biomarkers in Functional Dyspepsia: A Case-Control Analysis*

10:25 – 10:29 Discussant: Alexander Link, Bayreuth

10:29 – 10:37 Voicu Rednic, Cluj-Napoca: *Rapid on-site confocal microscopy using vivascope for tumor biopsies during EUS: a comparative analysis with classical histology*

10:37 – 10:41 Discussant: Anca Negovan, Targu-Mures

10:41 – 10:56 Satellite symposium (Sanofi): AccelRare – *Support for Every Medical Decision*

10:56 – 11:15 Coffee break

Lower gut

Chairs: Piero Portincasa, Miodrag Krstic, Tomica Milosavljevic

11:15 – 11:23 Biljana Knežević, Zagreb: *Claudin expression in colon lamina propria mononuclear cells of patients with ulcerative colitis*

11:23 – 11:27 Discussant: Tomica Milosavljevic, Belgrade

11:27 – 11:35 Mirela Georgiana Perne, Cluj-Napoca: *Checkpoint inhibitor-induced colitis: Early diagnosis, Therapeutic management according to severity*

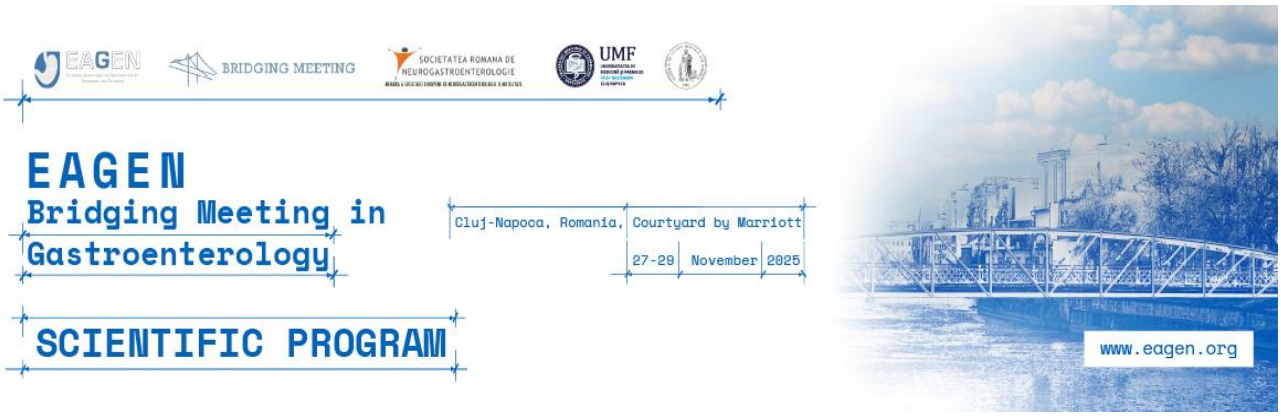
11:35 – 11:39 Discussant: Miodrag Krstic, Belgrade

11:39 – 11:47 Konrad Lehr, Magdeburg: *Microbial interactions in the gut: influence of bacterial communities on fungal colonization in twins*

11:47 – 11:51 Discussant: Teodora Surdea-Blaga, Cluj-Napoca

11:51 – 11:59 Andrei Pop, Cluj-Napoca: *Prevalence and Clinical Aspects of Celiac Disease in Romania*

11:59 – 12:03 Discussant: Marko Banic, Zagreb



12:03 – 12:11 Mohamad Khalil, Bari: *Unraveling the role of gut permeability in health and disease at the translational level*

12:11 – 12:15 Discussant: Simona Grad, Cluj-Napoca

12:15 – 12:23 Vytautas Kiudelis, Kaunas: *Microbiome in microscopic colitis*

12:23 – 12:27 Discussant: Dan Dumitrascu, Cluj-Napoca

12:27 – 12:35 Abdulrahman Ismaiel, Cluj-Napoca: *Antispasmodics and antidepressants in IBS: network meta-analysis*

12:35 – 12:39 Discussant: Piero Portincasa, Bari

12:39 – 12:47 Paul Grama, Targu-Mures: *The Role of Eosinophilic Cationic Protein in IBD*

12:47 – 12:51 Discussant: Stefan Popa, Cluj-Napoca

12:51 – 12:59 Nikola Krumina, Riga: *Ferritin-serum iron relationship in enteropathy patients evaluated by capsule endoscopy*

12:59 – 13:03 Discussant: Lidia Ciobanu, Cluj-Napoca

13:03 – 13:33 Satellite symposium (Alfasigma): *Dan D. Dumitrașcu – The Life of Patients with Irritable Bowel Syndrome*

13:33 – 14:23 Lunch break

Liver–pancreas

Chairs: Meri Trajkovska, Davor Stimac, Ludovico Abenavoli

14:23 – 14:31 Giuseppe Guido Maria Scarlata, Catanzaro: *Applying the combinatorial Metabolic Dysfunction-associated Steatotic Liver Disease nomenclature to patients with Hepatitis C Virus*

14:31 – 14:35 Discussant: Davor Stimac, Rijeka

14:35 – 14:43 Andrej Belančić, Rijeka: *Sneak peek on effectiveness, safety and pharmacoeconomics of anti-obesity medicines*

14:43 – 14:47 Discussant: Tomica Milosavljevic, Belgrade

14:47 – 14:55 Bojan Korica, Belgrade: *Potential protective effects of raspberry seed polyphenols in MASLD*

14:55 – 14:59 Discussant: Ludovico Abenavoli, Catanzaro

14:59 – 15:07 Iulia Minciuna, Cluj-Napoca: *Platelet proteomics – a new perspective in MASLD pathogenesis*

15:07 – 15:11 Discussant: Ludovico Abenavoli, Catanzaro

15:11 – 15:19 Nikola Bakovic, Belgrade: *Liver Frailty Index in patients with alcoholic and non-alcoholic liver cirrhosis*

15:19 – 15:23 Discussant: Bogdan Procopet, Cluj-Napoca

15:23 – 15:31 Catalina Olaru-Stavila, Chișinău: *Borreliosis and viral B hepatitis: a misleading association*

15:31 – 15:35 Discussant: Simona Bataga, Targu-Mures

15:35 – 15:43 Katarina Jankovic, Belgrade: *Efficacy and Safety of Atezolizumab and Bevacizumab in the Treatment of Advanced Hepatocellular Carcinoma: Experience from a Tertiary Center.*

15:43 – 15:47 Discussant: Alexander Link, Bayreuth

15:47 – 15:55 Andrei Motofelea, Cluj-Napoca: *Ultrasound -CT/MRI fusion imaging in the detection and characterisation of nodules in liver cirrhosis*

15:55 – 15:59 Discussant: Radu Badea

15:59 – 16:07 Emilija Nikolovska Trpchevska, Skopje: *Hyperglicaemia in pancreatic cancer: a symptom or consequence? Single center experience*

16:07 – 16:11 Discussant: Dan Dumitrașcu, Cluj-Napoca

16:11 – 16:19 Max Ole Hubert, Muenchen: *Severe Acute Pancreatitis: Why Obesity Is More Than Just a Comorbidity*

16:19 – 16:23 Discussant: Meri Trajkovska, Skopje

16:23 – 16:38 Satellite symposium (Vedra)

16:38 – 16:55 Coffee break

State of Art

Chair: Peter Malfertheiner, Dan Dumitrașcu

16:55 – 17:00 Jaroslaw Regula, Warsaw: *Are blood-based tests for CRC screening ready to use*

17:00 – 17:15 Jan Bornschein, Oxford: *Stomach inflammation and related early neoplastic changes in H. pylori positive patients – the SIREN project*

17:15 – 17:30 Andrada Seicean, Cluj-Napoca: *Acute cholecystitis treatment – surgical, endoscopic or conservative?*

17:30 – 17:45 Jan Tack, Leuven: *Advices for a successful career in gastroenterology*

17:45 – 18:00 Closing remarks

Saturday – 29 November

EAGEN Postgraduate course

09:00 – 09:10 Introduction:

Jan Tack: The mission of EAGEN

Dan Dumitrașcu, Peter Malfertheiner: presentation and objectives of the course

Session 1: Liver, pancreas

Chairs: Tamara Milovanovic, Eugen Tcaciuc, Ludovico Abenavoli

09:10 – 09:25 Ludovico Abenavoli, Catanzaro: *The gut-liver axis and the gut microbiota in health*

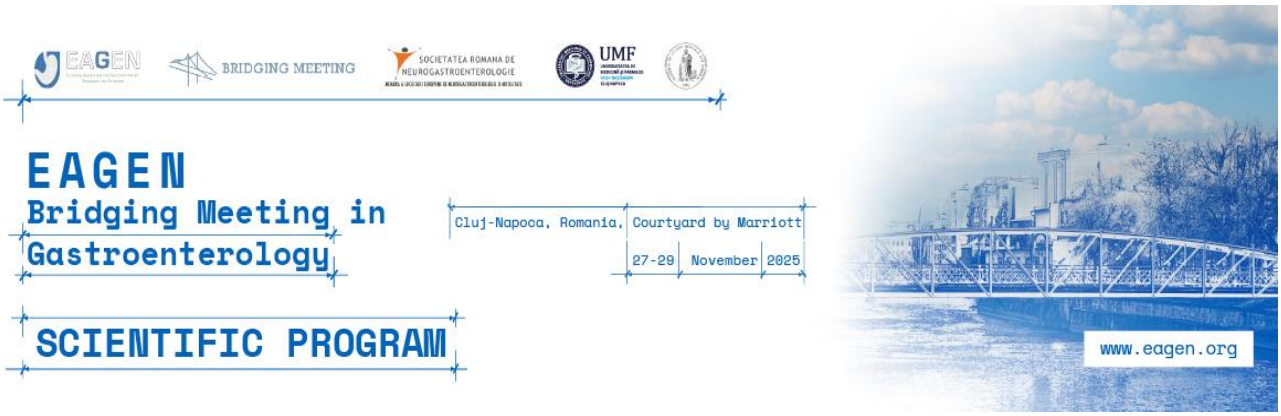
09:25 – 09:40 Davor Štimac, Rijeka: *MASLD in obesity – two epidemics*

09:40 – 09:55 Tamara Milovanovic, Belgrade: *Muscles in chronic liver diseases*

09:55 – 10:10 Eugen Tcaciuc, Chișinău: *HBV reactivation in patients under immunotherapy*

10:10 – 10:25 Zeno Sparchez, Cluj-Napoca: *Modern Ultrasound techniques in the management of hepatocellular carcinoma*

10:25 – 10:40 Bogdan Procopet, Cluj-Napoca: *Particularities of portal hypertension in patients with MASLD*



10:40 – 10:55 Meri Trajkovska, Skopje: *Chronic Pancreatitis: Innovations in multimodal treatment and Complication management*

10:55 – 11:15 Satellite Symposium (Salveo): *Therapeutic Efficacy of LOLA (L-ornithine-L-aspartate) Therapy in Hepatic Encephalopathy Management – Horia Ștefănescu, Oana Farcău (IRGH Cluj)*

11:15 – 11:35 Satellite symposium (Opella)

11:35 – 11:50 Coffee break

Session 2: Lower gastrointestinal tract

Chairs: Piero Portincasa, Marko Banic, Marcel Tanțău

11:50 – 12:05 Tomica Milosavljevic, Belgrade: *Chronic constipation – complexity of multiple causes & targeted therapies*

12:05 – 12:10 Piero Portincasa, Bari: *Opioid induced constipation – we can do better!*

12:10 – 12:25 Teodora Surdea-Blaga, Cluj-Napoca: *Obstructive defecatory disorders*

12:25 – 12:40 Marcel Tanțău, Cluj-Napoca: *Early detection of dysplasia in IBD*

12:40 – 12:55 Simona Fourie, Oxford: *Unmet needs regarding sexual wellbeing in patients after undergoing stoma formation*

12:55 – 13:10 Radu Badea, Cluj-Napoca: *Ultrasonographic diagnosis of intestinal diseases*

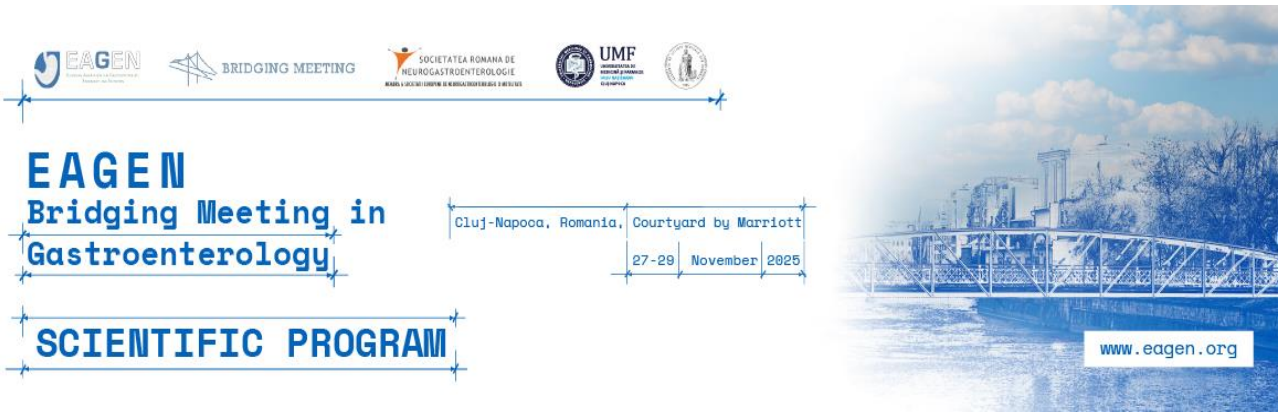
13:10 – 13:25 Dan L. Dumitrașcu, Cluj-Napoca: *The management of chronic diarrhea*

13:25 – 13:40 Satellite symposium (Biocodex): Practical implications in irritable bowel syndrome: what new evidence does *Bifidobacterium longum* 35624 bring to the management of symptoms?

13:40 – 14:30 Lunch break

14:30 – 14:45 Marko Banic, Zagreb: *The peculiar case of intestinal mucosa: immunity, microbiota and environment*

14:45 – 15:00 Simona Grad, Cluj-Napoca: *Indications of fecal material transplantation*



15:00 – 15:15 Lidia Ciobanu: *Gastrointestinal and liver immune-related adverse effects induced by immune checkpoint inhibitors*

15:15 – 15:30 Stefan Popa, Cluj-Napoca: *Artificial intelligence in gastroenterology*

15:30 – 15:45 Satellite symposium (Innergy): The role of intestinal eubiosis in the management of irritable bowel syndrome

15:45 – 16:00 Coffee break

16:00 – 16:10 Satellite symposium (Abbvie)

Session 3: Upper gastrointestinal tract

Chairs: Anca Negovan, Chrisdtian Schulz, Vladimir Milivojevic

16:10 – 16:25 Peter Malfertheiner, Muenchen: *Gastric microbial ecosystem beyond H. pylori*

16:25 – 16:40 Vasile Drug, Iași: *The management of extra-esophageal GERD – a continuous challenge*

16:40 – 16:55 Simona Bataga, Tg-Mureș: *Autoimmune gastritis*

16:55 – 17:10 Christian Schulz, Munich: *Gastritis chapter closed*

17:10 – 17:25 Anca Negovan: *Modulators of Progression in Preneoplastic Gastric Lesions*

17:25 – 17:40 Vladimir Milivojevic, Belgrade: *In search for Helicobacter pylori eradication success; tailored made PCR guided therapy versus empirical treatment*

17:40 – 17:55 Alexander Link, Bayreuth: *Beyond Junk: Unlocking the Biomarker and Therapeutic Potential of ncRNAs*

17:55 – 18:10 Closing remarks

A1. Predictive Value of Clinical and Endoscopic Scores in Upper Gastrointestinal Bleeding Outcomes: A Retrospective Study

Monica Pantea, Anca Negovan, Simona Bățagă

Department of Clinical Science - Internal Medicine, "George Emil Palade" University of Medicine, Pharmacy, Science, and Technology of Târgu Mureș, Romania

Introduction: Acute upper gastrointestinal bleeding (AUGIB) is a common life-threatening medical emergency, that requires hospital admission, and increased healthcare resource utilization. The priority in these patients is to stratify the probability of complications and to discriminate between critical and less severe cases, to decide whether hemostatic maneuvers are needed or the patient discharge is recommended. Recently, a number of risk prediction models have been introduced with the aim of improving patient stratification.

Methods: We retrospectively analyzed 1.270 patients who underwent gastroscopy for upper gastrointestinal bleeding at the Gastroenterology Department of Mureș Emergency County Hospital between 2017 and 2019. Risk prediction models were calculated from presenting symptoms, admission vital signs, and endoscopic findings. In addition to the established Blatchford (GBS) and Rockall scores, AIMS65, ABC, and H3B2 were evaluated for their ability to predict severe endoscopic lesions requiring urgent hemostasis and mortality.

Results: The most frequent symptom was melena (40%), followed by combined hematemesis and melena (17%) and hematemesis alone (14%); 12% presented in hemorrhagic shock. H3B2, AIMS65, ABC, and GBS values were significantly higher among non-survivors. For mortality prediction, the ABC score demonstrated the highest accuracy (AUROC 0.85, 95% CI 0.81–0.89, $p<0.05$), outperforming GBS (0.75, 95% CI 0.70–0.79), H3B2 (0.71, 95% CI 0.67–0.75), and AIMS65 (0.60, 95% CI 0.55–0.65). For endoscopic hemostasis, ABC (0.75, 95% CI 0.71–0.79) and H3B2 (0.70, 95% CI 0.66–0.74) performed comparably with GBS (0.69, 95% CI 0.65–0.73), while AIMS65 showed weaker discriminative ability (0.65, 95% CI 0.61–0.70).

Conclusion: Among the evaluated risk models, the ABC score showed superior predictive power for mortality and robust accuracy in identifying patients requiring therapeutic endoscopy. Incorporating ABC into early clinical decision-making may improve stratification and optimize management strategies in upper gastrointestinal bleeding.

Keywords: prognostic scores – upper gastrointestinal bleeding – risk stratification.

A2. Endoscopic treatment for primary neoplasia of the gastroesophageal junction: a multi-center retrospective study

Aleksandra Sztogrin-Pluta[1], Andrew Lee[2], Marta Czapnik[1], Wojciech Korcz[1], Nastazja D. Pilonis[1], Jaroslaw Regula[1], Michal F. Kamiński[1], Massimiliano di Pietro[2], Władysław Januszewicz[1]

1) Department of Oncological Gastroenterology, The Maria Sklodowska-Curie National Research Institute of Oncology, Warsaw, Poland; 2) Early Cancer Institute, University of Cambridge, Cambridge Biomedical Campus, Cambridge, UK

Background and Aims: The incidence of gastroesophageal junction (GEJ) carcinoma is rising worldwide. Endoscopic resection has become a first-line treatment for early gastrointestinal neoplasia, but the optimal modality for primary GEJ lesions remains uncertain, given their ambiguous classification between gastric and esophageal origin. This study compared outcomes of endoscopic mucosal resection (EMR) and endoscopic submucosal dissection (ESD) for primary GEJ neoplasia.

Methods: We performed a retrospective cohort study at two high-volume referral centers including adult patients who underwent endoscopic resection for primary GEJ neoplasia (2005–2025), which was defined as low or high-grade dysplasia (LGD/HGD) or adenocarcinoma (Ca) within a visible lesion located up to 1cm over and 2cm below the proximal margin of the gastric folds (Siewert type II). We compared the outcomes of EMR and ESD for these tumors, including R0, en bloc, and curative resection rates. The curative resection was defined as a R0 removal of G1/G2 adenocarcinoma limited to Sm1 layer without lymphovascular invasion (LVI–).

Results: In total, 184 procedures (66 ESD, 118 EMR) in 182 patients were analyzed (mean age 69 ±10 years, 78% male). Median lesion size was 19mm (IQR 15). Final pathology showed adenocarcinoma in 81%, HGD in 14%, LGD in 3%, and benign lesions in 2%. On average, larger and more advanced lesions were treated by ESD as compared to EMR (median size 20 mm vs. 13.5 mm, $p<0.05$; adenocarcinoma in 82% vs. 81%). Despite this, resection outcomes favored ESD over EMR: R0 resection 88% vs. 73% ($\chi^2=4.01$, $p=0.045$), and en bloc resection 97% vs. 29% ($\chi^2=76.27$, $p<0.0001$). Curative resection rates were comparable (68% vs. 65%, $\chi^2=0.06$, $p=0.81$). Complications were slightly higher with EMR (25% vs. 23%), mainly intraprocedural bleeding in EMR and perforation in ESD ($\chi^2=0.006$, $p=0.94$). Local recurrence was more common after EMR (29% vs. 14%, $\chi^2=4.79$, $p=0.029$). Histological staging was upgraded in 43%, downgraded in 7%, unchanged in 47%.

Conclusion: ESD achieved higher R0 and en bloc rates than EMR, with similar curative resection. Frequent histological upgrading highlights the need for complete resection, while higher recurrence after EMR supports ESD as the preferred modality for primary GEJ neoplasia.

A3. The Non-Invasive Diagnosis of Gastro-esophageal Reflux Disease and the Role of Pepsin

Diana-Elena Floria, Oana-Bogdana Bărboi, Vasile-Liviu Drug

Universitatea de Medicină și Farmacie Iași

Introduction: Establishing the diagnosis of gastroesophageal reflux disease (GERD) currently relies on a series of invasive and costly procedures, including upper gastrointestinal endoscopy and pH monitoring. This trend is also apparent in recent consensus guidelines, which emphasize the essential role of objective reflux assessment. Given the burden of invasive diagnostic methods, salivary pepsin has been proposed as a non-invasive biomarker, though its clinical utility remains debated.

Methods: We reviewed the existing literature on pepsin detection and its diagnostic performance in GERD, alongside a proof-of-concept experimental protocol. Pepsin detection methods comprise biochemical assays (Western blot, ELISA), fibrinogen digestion, and the rapid immunoassay device Peptest. Diagnostic performance was compared across heterogeneous study designs, populations, and cut-off thresholds. To complement the literature review, we implemented a proof-of-concept experimental protocol. Unstimulated fasting saliva samples were collected from 10 healthy volunteers and divided into control and test aliquots. Test samples were supplemented with pepsin at defined protein-to-enzyme ratios (20:1 and 50:1), acidified to pH 1–2, and incubated at 37 °C for 60 minutes. Following centrifugation and peptide purification with ZipTip C18 tips, all samples were analyzed using MALDI-TOF mass spectrometry to identify proteolytic modifications attributable to pepsin.

Results: Evidence from clinical studies demonstrates heterogeneous diagnostic performance of salivary pepsin, with sensitivity ranging from 56–73% and specificity from 72–78%, yielding moderate overall accuracy. While some studies show significantly higher salivary pepsin concentrations in GERD and hypersensitive esophagus compared to healthy controls, others fail to differentiate GERD from functional heartburn or to predict proton pump inhibitor response. In extra-digestive manifestations, such as asthma, COPD exacerbations, and lung transplant rejection, associations with pepsin have been reported but remain non-causal and inconsistent. In our pilot proteomic analysis, distinct peptide peaks attributable to pepsin activity were detected in treated samples, suggesting the feasibility of identifying specific proteolytic patterns.

Discussion: Although salivary pepsin remains an attractive candidate for non-invasive GERD diagnosis, its utility currently appears moderate, limited by lack of standardized protocols and cut-off values. Proteomic profiling may represent a promising direction to enhance diagnostic accuracy by detecting unique signatures of pepsin activity.

Conclusion: Pepsin holds potential as a surrogate GERD biomarker; however, clinical application requires standardization and validation in larger cohorts.

A4. Dental erosion

Andrei Picoș[1], Ioan Petean[2] , Alexandra Dădârlat-Pop[3]

1) Department of Prevention in Dental Medicine, Iuliu Haţieganu University of Medicine and Pharmacy; 2) Faculty of Chemistry and Chemical Engineering, Babes Bolyai University, Cluj-Napoca; 3) Department of Cardiology 'Nicolae Stancioiu' Heart Institute, 'Iuliu Haţieganu' University of Medicine and Pharmacy; Cluj Napoca

Background: Dental erosion is a significant topic in medical literature, both for gastroenterology and dental medicine, it represents a progressive loss of dental hard tissues through a chemical process, without bacterial involvement. Erosive tooth wear is a multifactorial condition with a psychosocial and functional significance. The pathogenesis of dental erosion in patients diagnosed with gastroesophageal reflux disease (GERD) characterized by the presence of an acidic oral environment after reflux episodes, is a complex mechanism in which the acid with its hydrogen ion will start to dissolve the dental tissues after diffusing first through the acquired biofilm, free of bacteria that covers oral hard and soft tissues.

Methods: The present study was designed to observe the effect of low oral pH in time on natural surfaces including enamel and dentine, but also on materials used in treating these dental destructions such as composites and ceramics. The acidic oral environment was estimated in relation to salivary pH. In the dental laboratory, 5-mm^2 and 1-mm composite pieces of thick enamel, dentine, Emax Ceramic and Nexco

Ivoclar composite were cut in order to be analyzed using atomic force microscopy (AFM) and to observe the surface alterations. Gastric acid was collected and mixed with natural saliva until a pH value of 6.0 was obtained, in which the pieces were immersed for 24, 120, 240 h, an equivalent showing the medium number and duration of gastroesophageal reflux episodes representing 1, 5 and 10 years of untreated GERD. Roughness of each surface was calculated at a microstructure and nanostructure level.

Results. The results showed significant alterations in enamel and dentine exposed to a lower pH level beginning even at a short immersion time, in comparison with composites and ceramics which had no alterations. The microstructural roughness of healthy enamel was Rq=9.69 nm, in comparison to 240h exposed pieces to acid which showed depressions of 100-200 μm in diameter and variable depths reaching even 100 nm, with heavily roughness of Rq=42.7 nm. Microstructural ruggedness of the healthy dentin was Rq=30.7 nm compared to Rq=322 nm of the 240h acid exposed pieces.

Conclusion . Multidisciplinary attention should be given to detect and manage acidity of the oral cavity caused by GERD, in order to prevent dental erosion. The period of time of the contact between the erosive agent and the tooth is more important than the pH acidity. Reconstruction materials used in the treatments of dental erosion are not affected by pH salivary level and can be used in total rehabilitation cases.

A5. Targeting Gastroesophageal Reflux Disease with Probiotics: Symptom Relief and Microbiota Benefits – A Systematic Review

Vera Ciornolutchii, Abdulrahman Ismaiel, Dan L. Dumitrascu

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

Introduction: Gastroesophageal reflux disease (GERD) is a prevalent disorder characterized by heartburn and regurgitation, often impairing quality of life. Proton pump inhibitors (PPIs) remain the cornerstone of therapy, yet many patients experience incomplete symptom relief or drug-related adverse effects. Growing evidence implicates alterations in the gut and esophageal microbiota in GERD pathogenesis, leading to interest in probiotics as potential adjuncts to conventional treatment. This systematic review evaluated the efficacy and safety of probiotic supplementation in adult patients with GERD.

Methods: A comprehensive search of PubMed, Embase, and Scopus was conducted through July 2025. Eligible studies included randomized controlled trials (RCTs) and observational studies assessing probiotic interventions in adults with clinically or instrumentally confirmed GERD or reflux-related symptoms. Data extracted included study characteristics, probiotic strains, dosing regimens, treatment duration, outcomes on GERD symptoms and esophageal parameters, and adverse events. Study quality was appraised using the Cochrane Risk of Bias 2.0 tool for RCTs and the Newcastle–Ottawa Scale for observational studies.

Results: Nineteen studies were included: 12 RCTs, 5 interventional studies, and 2 retrospective cohorts. Investigated strains included *Bifidobacterium lactis*, *Lactobacillus gasseri*, *Bifidobacterium bifidum*, *Lactobacillus acidophilus*, *Lactobacillus reuteri*, and multi-strain formulations. Supplementation with *B. lactis* and *L. gasseri* consistently improved validated symptom scores, reduced heartburn and regurgitation frequency, and in some trials decreased esophageal acid exposure. *B. bifidum* also demonstrated beneficial effects across diverse populations. Mechanistic insights suggested probiotics enhance mucosal barrier integrity and modulate inflammatory pathways. Safety was favorable across all studies, with adverse events limited to mild gastrointestinal complaints such as bloating and flatulence. Considerable heterogeneity in strain selection, dosage, and study design limited cross-comparisons and precluded meta-analysis.

Conclusions: Probiotics, particularly *B. lactis*, *L. gasseri*, and *B. bifidum*, show promise as safe adjunctive therapies for GERD, offering symptomatic relief and potential mucosal benefits. Standardized, large-scale RCTs are warranted to establish optimal strains, dosing strategies, and long-term efficacy, thereby defining their role in integrated GERD management.

Keywords: gastroesophageal reflux disease (GERD) - probiotics - *Bifidobacterium lactis* - *Lactobacillus gasseri* - adjunctive therapy.

A6. Unravelling Intestinal Permeability: Translational Aspects

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Background: Intestinal permeability (IP) is key to gut–metabolic homeostasis, and its disruption contributes to obesity, steatosis, and gastrointestinal disease. Translational studies combining clinical and experimental findings are scarce.

Methods: Clinical IP was evaluated using the 4-sugar test (sucrose for gastric, lactulose/mannitol for small intestine, sucralose for colon) with urinary probe recovery by HPLC–MS, or serum markers (zonulin, lactate, lipopolysaccharide). Experimental IP was assessed in Caco-2 monolayers and in gastric and esophageal biopsies mounted in Ussing chambers.

Clinical results: Among 120 adults stratified by BMI and steatosis, gastric and small intestinal permeability were unaffected by BMI, whereas colonic permeability (sucralose excretion) increased with BMI, waist circumference, and

steatosis, independent of age and diet. Low adherence to the Mediterranean diet correlated with higher "junk food" scores and a trend toward increased IP. In another cohort, Ramadan intermittent fasting reduced body weight and BMI in both Italian and Lebanese participants, with significant decreases in serum zonulin and lactate in the Lebanese cohort, indicating improved barrier function.

Experimental results: Bioactive compounds showed protective effects on epithelial integrity. A nutraceutical combination (butyrate + zinc gluconate + vitamin D; Dibuzin®) mitigated ethanol- and bile acid–induced barrier disruption in Caco-2 cells, outperforming resveratrol and neuroglobin in some models. Thymbra spicata, a polyphenol-rich Mediterranean herb, improved ionic transport without impairing monolayer integrity; its ethanolic extract inhibited glucose transport and protected against oxidative and chemical injury. In ex vivo biopsies, Poliprotect® preserved esophageal and gastric mucosal resistance against acid and bile acid injury, confirmed histologically.

Conclusion: Colonic, but not gastric or small intestinal, permeability is linked to metabolic disorders and is modifiable by diet and targeted interventions. Experimental findings confirm that selected nutraceuticals preserve barrier integrity, supporting segment-specific IP assessment and development of barrier-protective strategies for metabolic and gastrointestinal disease prevention.

A7. Gastric juice MicroRNA as Biomarkers in Functional Dyspepsia: A Case-Control Analysis

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Introduction: MicroRNAs (miRNAs) are short, non-coding RNA molecules that regulate gene expression and are considered promising candidates for non-invasive biomarker development. Functional dyspepsia (FD), a multifactorial disorder of the upper gastrointestinal tract, remains challenging to diagnose due to the absence of objective markers. This study aimed to evaluate the utility of specific gastric miRNAs in distinguishing FD subtypes and understanding symptom variation.

Methods: A case–control study was conducted involving 50 participants: 28 patients with FD (subdivided into 14 with postprandial distress syndrome [PDS] and 14 with epigastric pain syndrome [EPS]) and 22 healthy volunteers. Gastric juice samples were obtained via upper gastrointestinal endoscopy. Expression of three candidate miRNAs (miR-21-5p, miR-155-5p, and miR-203a) was quantified by qRT-PCR, using miR-16 and U6 as internal references. Relative expression levels were calculated using the ΔΔCt method, and associations with symptom severity were explored using validated symptom scores.

Results: Among the three miRNAs studied, miR-21-5p demonstrated significantly higher expression in FD patients compared to healthy controls (mean fold-change: 19.98 ± 91.56 vs 2.63 ± 3.30, $p = 0.00774$). No significant overall difference was observed for miR-155-5p or miR-203a between groups. However, when stratified by FD subtype, PDS patients exhibited elevated levels of miR-21 and miR-155 and reduced miR-203 expression compared to those with EPS. Symptom correlations revealed an inverse relationship between miR-21/miR-155 and epigastric pain, while these same markers positively correlated with sensations of early satiety and fullness. Conversely, higher miR-203 levels were associated with greater epigastric discomfort and less postprandial bloating. Additionally, prior *Helicobacter pylori* infection was linked to decreased miR-203 expression ($p \approx 0.03$).

Conclusions: Alterations in gastric juice miRNA profiles, particularly involving miR-21, miR-155, and miR-203, appear to characterize FD and its clinical subtypes. The PDS phenotype was associated with a distinct molecular signature compared to EPS, reflecting potential pathophysiologic divergence. These findings support the role of gastric fluid-derived miRNAs as indicators for subtype classification and as possible targets for individualized treatment strategies in FD. Validation in larger, multi-center cohorts is needed to confirm their clinical applicability.

Keywords: functional dyspepsia – gastric juice – microRNA – epigastric pain – postprandial distress – molecular diagnostics.

A8. *H. pylori* Infection and Prolonged PPI Use: Endoscopic and Histologic Perspectives

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Introduction: This single-center retrospective study investigated the clinical, biological, endoscopic, and histopathological differences in patients with *H. pylori* infection, stratified according to long-term proton pump inhibitor (PPI) use.

Materials and methods: A total of 297 *H. pylori*–positive patients were included: 146 long-term PPI consumers (> 3 months) and 151 PPI-naive users, admitted to the Emergency County Hospital of Târgu Mureș, Romania (2017–2024). Clinical manifestations, laboratory parameters, endoscopic and histopathological findings were compared between groups.

Results: The prevalence of dyspeptic symptoms and alarming features was similar among groups (all $p > 0.05$). However, PPI consumers presented lower hemoglobin (12.45 vs. 13.35 g/dL, $p = 0.0033$) and mean corpuscular volume values (MCV - 85.7 vs. 88.3 fL, $p = 0.0045$) in long-term PPI users, indicating a predisposition toward anemia development. Other laboratory parameters (serum iron, ESR, fibrinogen, INR and lipid profile) did not differ significantly.

Upper endoscopic evaluation showed a lower prevalence of antral erosive gastritis (25.34% vs. 42.38%, p=0.0022, OR=0.46, 95% CI: 0.28–0.76) and corporal erosive gastritis (3.42% vs. 10.60%, p=0.022, OR=0.30, 95% CI: 0.12–0.84) among PPI users. No significant differences were observed regarding gastric ulcers, submucosal hemorrhages, or duodenal lesions. Histopathological analysis revealed similar rates of atrophic gastritis and intestinal metaplasia between these groups. A Spearman correlation demonstrated weak but significant negative associations between long-term PPI use and decreased hemoglobin (r=–0.17, p=0.003) and MCV values (r=–0.17, p=0.004).

Discussion: Chronic PPI therapy in *H. pylori*–positive patients is associated with significantly lower hemoglobin and MCV values, indicating increased anemia susceptibility. Long-term PPI consumers presented a decreased prevalence of antral and corporal erosive gastritis, suggesting that prolonged acid suppression provides a mucosal protection effect despite persistent *H. pylori* infection. Hematologic parameter surveillance is essential in *H. pylori*–infected individuals receiving long-term PPI treatment.

Keywords: *H. pylori* – proton pump inhibitors – anemia – gastritis.

A9. Rapid On-Site Confocal Microscopy Using VivaScope for Tumor Biopsies During EUS: A Comparative Analysis with Classical Histology

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Introduction: Confocal microscopy through VivaScope offers real-time, high-resolution virtual imaging of fresh tissue, allowing a rapid histopathological diagnosis. This study evaluates the performance of virtual diagnosis using VivaScope in comparison with standard pathological diagnosis for biopsies obtained during endoscopic ultrasound (EUS)-guided fine-needle biopsy (FNB) of suspected malignancy.

Methods: This prospective study included consecutive patients undergoing EUS-FNB for tumor evaluation were included. Two passes were made using 22-gauge FNB needles and their adequacy was established by macroscopic assessment (> 4 mm in length). Two diagnosis groups were analyzed: the virtual diagnosis group from the VivaScope confocal microscopy virtual images of the first EUS-FNB pass, interpreted independently by two experienced pathologists and the final diagnosis was based on the both EUS-FNB passes introduced in formalin and analyzed pathologically (H&E staining and immunohistochemistry) by other two pathologists blinded from the virtual analysis and independent between them. The concordance and interobserver agreement between the virtual and final diagnosis were assessed.

Results: Fifty-two patients undergoing EUS-FNB were included. The final histological diagnoses ware: 37 malignant lesions (23 pancreatic adenocarcinomas, 3 cholangiocarcinomas, 2 pancreatic neuroendocrine tumors, and 9 other malignancies) and 15 with benign pathology (14 chronic pancreatitis, 1 schwannoma). All the samples were adequate for pathological assessment. VivaScope evaluation showed high interobserver agreement, with a Cohen's kappa of 0.95 and 98% concordance (51/52 cases). Standard pathological diagnosis showed perfect agreement (100%) between observers. In 12 (23%) cases the immediate management of the patient was changed after the VivaScope result, especially regarding the management of obstructive jaundice.

There was one false negative result on VivaScope: a lesion interpreted as benign, which was later confirmed to be a pancreatic adenocarcinoma on final histology. Additionally, three false positive cases were identified — all were initially interpreted as pancreatic neuroendocrine tumors using VivaScope but were ultimately diagnosed as chronic pancreatitis.

Discussion: VivaScope confocal microscopy provides rapid and reliable on-site diagnostic assessment during EUS-guided biopsies, with excellent interobserver agreement and strong concordance with classical histology. However, care must be taken when interpreting suspected pancreatic neuroendocrine tumors on VivaScope, as confocal features may overlap with chronic inflammatory changes such as those seen in chronic pancreatitis. VivaScope is a valuable adjunct tool that may enhance clinical decision-making in gastrointestinal oncology.

B1. Claudin Expression in Colon Lamina Propria Mononuclear Cells of Patients with Ulcerative Colitis

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Introduction: Disruption of the intestinal barrier represents the early step in the development of intestinal inflammation. The integrity of intestinal epithelial barrier consists of several components, tight junctions (TJs) proteins, including the claudin family being one of the key components . We hypothesize that the claudins as part of TJs proteins between intestinal epithelial cells are also expressed in lamina propria mononuclear cells (LPMCs) and the expression of claudins in LPMCs would differ from the expression in blood leukocytes of the same patient with ulcerative colitis (UC). In addition there would be a difference in expression of claudins in LPMCs and blood leukocytes between UC patients and healthy controls.

Materials and methods: In order to demostrate a difference in claudin expresion in colonic LPMCs and blood leukocytes, the study will include 20 patients with endoscopically active UC and 20 healthy controls. The biopsy specimens of colonic mucosa from four colonic segments of each of UC patient and healthy control will be subjected to histopathologic evaluation and LPMCs isolation, as well. The expression of claudins on isolated LPMCs will be evaluated with flow-cytometry, at the protein level and the expression at RNA level will be evaluated by qPCR. The expression of claudins in FFPE (Formalin Fixed, Paraffin Embedded) colonic specimens will be documented by immunohistochemistry. Blood samples of UC patients and healhy controls will be subjected to plasma separation and RNA isolation.

Discussion and expected scientific contribution: The result of this study would point out to claudins as to a potential new biomarker in the pathophysiology of UC. Potentially, the expected difference in claudin expression in blood leukocytes of UC patients and healthy controls could be the first step towards a less invasive biomarker in clinical evaluation of patients with UC.

Keywords: ulcerative colitis – tight junctions proteins – claudins – lamina propria mononuclear cells – blood leukocytes.

B2. Checkpoint Inhibitor-induced Colitis: Early Diagnosis, Therapeutic Management According To Severity

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Introduction: Immune checkpoint inhibitors (ICIs) such as anti-PD-1/PD-L1 and anti-CTLA-4 antibodies have revolutionized cancer therapy but may trigger immune-related adverse events (irAEs). Colitis is among the most frequent and severe irAEs, requiring prompt recognition and tailored management.

Methods: We present the case of a 50-year-old woman with stage IV lung adenocarcinoma (secondary cerebral, pulmonary, pleural, and adrenal metastases) treated with carboplatin, pemetrexed, pembrolizumab, and corticosteroid prophylaxis. After several cycles, she developed diarrhea with rectal bleeding, asthenia, and 10% weight loss. Diagnostic work-up included colonoscopy, histopathology, stool tests, and laboratory evaluation to exclude infections and alternative etiologies.

Results: Colonoscopy revealed pancolitis with diffuse erythema, edema, friability, and multiple pleomorphic ulcerations (MAYO 3). Histology showed severe glandular atrophy, crypt distortion, crypt abscesses, and a dense mixed inflammatory infiltrate without dysplasia or malignancy, consistent with ICI-induced ulcerative colitis. Differential diagnosis excluded Clostridium difficile, infectious enterocolitis, and ischemic colitis. The patient was managed according to severity: high-dose systemic corticosteroids with gradual taper, immunotherapy interruption, and consideration

of biologics (anti-TNF or anti-integrin) in case of steroid-refractoriness.

Discussion: ICI-induced colitis occurs in 1–25% of patients, with higher risk under combined checkpoint blockade. Pathogenesis involves T-cell overactivation and cytokine-driven inflammation. Endoscopic and histologic assessment is crucial for grading severity and guiding therapy. Early initiation of immunosuppression (prednisone or methylprednisolone) improves outcomes, while biologic agents are indicated in refractory cases. Prompt diagnosis and close monitoring are essential to balance irAE control with continuation of oncologic therapy.

Conclusion: This case highlights the importance of early recognition of ICI-induced colitis, integration of clinical, endoscopic, and histopathologic findings, and severity-adapted therapy to optimize patient outcomes in oncologic practice.

B3. Microbial Interactions in the Gut: Influence of Bacterial Communities on Fungal Colonization in Twins

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Introduction: The human gut microbiome is composed of a diverse array of bacteria, viruses, archaea, and fungi. While the bacterial component has been extensively studied, the dynamics of the fungal community, the mycobiome, remain less well understood and are an area of active research. Several factors, including genetics, have been proposed to influence alterations in microbiota composition. Twin studies offer a unique opportunity to control for genetic and environmental heterogeneity and thereby help disentangle the underlying influences on the microbiome. The aim of this study was to characterize the gut mycobiome and investigate its potential interactions with the bacterial microbiota in healthy twin subjects.

Methods: To address potential confounding due to genetic variability, we specifically focused on monozygotic and dizygotic twin pairs in this analysis. Participants underwent detailed characterization using standardized questionnaires covering birth history, environmental exposures, and dietary habits. Stool samples from 106 twin pairs (212 individuals) were analysed using 16S rRNA gene sequencing to profile bacterial communities and internal transcribed spacer (ITS) sequencing to assess fungal composition.

Results: The fungal community in twin pairs showed greater heterogeneity than the bacterial community. Zygosity and environmental factors did not affect fungal abundance or composition. To explore fungal-bacterial interactions, all data were merged and re-analyzed. Candida, Prevotella, and Bacteroides were the most abundant genera. Prevotella and Bacteroides both showed negative correlations with Candida, and network analysis confirmed antagonistic relationships among these three genera.

Conclusion: Our findings offer unique insights into the composition and dynamics of intestinal fungal communities in twins, suggesting that fungal populations in healthy individuals may follow distinct host-related patterns. Moreover, the data indicate that fungal and bacterial communities are interdependent, with changes in one potentially affecting the other. This study highlights the importance of considering fungal–bacterial interactions in future gut microbiome research and their implications for human health.

B4. Prevalence and Clinical Aspects of Celiac Disease in Romania

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Background and aims: Celiac disease (CD) is a chronic autoimmune enteropathy triggered by gluten ingestion in genetically predisposed individuals. While classically characterized by malabsorptive gastrointestinal symptoms, CD is now recognized as a systemic condition with a wide spectrum of extra-digestive manifestations. Data on its epidemiology and clinical spectrum in Romania are limited. We aimed to evaluate both the prevalence of CD in a Romanian adult population and the spectrum of its clinical presentations, including extra-digestive involvement.

Methods: We conducted two complementary investigations. First, a prospective cross-sectional study of 713 Romanian adults recruited from tertiary care centers and medical institutions, screened using the BIOHIT Celiac Quick Test, with histological confirmation of positive cases. Second, a retrospective analysis of 108 CD patients admitted to a tertiary hospital between 2010 and 2024, focused on identifying extra-digestive manifestations.

Results: In the prevalence study, 9 participants tested positive and were histologically confirmed, yielding a prevalence of 1.26%, slightly above the global average. CD patients were significantly younger (mean 30.3 vs. 49.2 years) and had a lower BMI (22.2 vs. 28.1) compared to non-CD individuals. The most common gastrointestinal symptoms included bloating, flatulence, constipation, and diarrhea. In the clinical spectrum study, 76.8% of patients were

female, with a mean age of 43.2 years. The most frequent extra-digestive manifestations were iron deficiency anemia (20.4%), hypoproteinemia (18.5%), and autoimmune thyroid disease (14.8%). Associations with cardiovascular conditions, depressive disorders, gluten ataxia, and peripheral neuropathy were also identified.

Conclusions: The prevalence of CD in Romania is comparable to European data but remains underdiagnosed. The condition presents with a broad range of gastrointestinal and systemic features, particularly autoimmune and neuropsychiatric disorders. Our findings support the need for systematic screening, greater clinical awareness, and multidisciplinary management strategies to improve early detection and prevent long-term complications.

Key words: celiac disease – prevalence – epidemiology – extra-digestive manifestations – gluten-free diet.

B5. Microscopic Colitis: Analysis of Microbiota Changes in Colonic Segments and the Terminal Ileum

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Introduction: Microscopic colitis (MC) refers to two pathologies – Collagenous colitis (CC) and Lymphocytic colitis (LC) that cause chronic watery diarrhoea, urgency, incontinence leading to significantly decreased quality of life[1]. It is thought that MC develops due to a pathological immune response to intestinal luminal antigens in genetically predisposed individuals, with microbiota playing an important role[2, 3]. However, the pathogenesis of MC is still unclear.

Aims and methods: This study aimed to investigate alterations in the bacterial composition of patients with microscopic colitis (MC) in the terminal ileum and various colonic segments, and to explore their relationship with disease progression. During diagnostic colonoscopy, biopsies were obtained from the terminal ileum and six distinct colonic regions. DNA was extracted using the AllPrep DNA/RNA Micro Kit (Qiagen) according to the manufacturer's protocol. Bacterial communities were profiled by sequencing the V3–V4 variable regions of the 16S rRNA gene, amplified with the 27F and 338R primers, and sequenced on the Illumina MiSeq platform (2 × 250 bp; Illumina, Hayward, CA). Bioinformatic processing was conducted with DADA2, and taxonomic assignments were performed using the RDP classifier.

Results: Biopsy samples were collected from 20 active CC patients, 20 active LC patients, and 50 controls. Beta-diversity and differential compositional analyses demonstrated distinct microbial profiles across different intestinal segments. Compared with controls, CC patients had consistent alterations in three bacterial families throughout the entire colon. The abundance of Erysipelatoclostridiaceae and Coriobacteriaceae was decreased and Pasteurellaceae – increased. Additionally, 35 families had segment-specific changes in the colon. Also, 25 families displayed altered abundance in the terminal ileum. In LC patients, the abundance of Erisypelotrichaceae was consistently across the entire colon. Segmental changes were observed in 38 other families, and 12 families displaying altered abundance in the terminal ileum. The bacterial profile of LC and CC was revealed to be significantly different. Lower abundance was observed in LC across many families, particularly in the right colon and terminal ileum.

After sample collection, 15 CC patients and 12 LC patients were treated with budesonide. After a standard course, 3 CC and 2 LC patients had an incomplete response. Beta diversity analysis revealed significant differences in the ascending and descending colon of CC patients based on response to budesonide. Patients with incomplete response to budesonide had an increased abundance of The abundance of the genus Paucibacter was observed to be increased in CC patients with incomplete response to budesonide. Similar tendencies were not observed in LC.

1 CC patient exhibited a quiescent disease course, 6 reached a sustained remission after treatment, 7 had a relapsing and 6 had a chronic active disease. Significant differences in beta diversity were observed in transverse, descending colon and rectum in CC patients based on disease course. Beta diversity of the descending colon had a medium correlation with disease behaviour. In the LC group 6 patients had a quiescent disease, 8 had a sustained remission after treatment, 3 exhibited a relapsing and 4 had a chronic active disease. No significant correlation between microbiota and disease behaviour was observed in LC.

Conclusion: Significant differences in bacterial composition were observed between CC, LC and controls in the terminal ileum and colon. Both CC and LC displayed bacterial alterations that were not consistent throughout the entire colon but varied between different colonic segments. Microbiome differences based on response to budesonide and disease behaviour were observed in CC, but not LC.

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B6. Unmet Needs Regarding Sexual Wellbeing in Patients After Undergoing Stoma Formation

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Background: Stoma surgery, whether due to inflammatory bowel disease, cancer, or injury, can negatively affect sexual function and overall sexual wellbeing. Many patients report that their concerns in this area are not adequately addressed in clinical settings. This study set out to identify patient-reported issues related to sexual wellbeing, understand how these are discussed with healthcare providers, and highlight patients' priorities regarding sexual wellbeing support.

Methods: A cross-sectional online survey was conducted internationally between March 2023 and March 2024. The survey, shared through social media platforms, targeted English-speaking populations and was promoted in partnership with international inflammatory bowel disease and ostomy support organisations.

Results: A total of 370 respondents completed the anonymous survey. Among them, 61% reported persistent concerns about their sexual wellbeing, while 68% had never received any information about how a stoma might affect their sex life. However, 89% expressed a clear interest in receiving such guidance. When information was provided, surgeons were cited as the most common source.

Key concerns included changes in body image (32%), problems related to the stoma appliance (29.7%), challenges in intimate relationships (28.1%), and decreased self-confidence (9.9%). More than half of participants wanted all healthcare professionals involved in their care to address sexual wellbeing. Suggestions for diverse informational resources were also made.

Conclusions: Sexual wellbeing issues following stoma surgery are widespread and frequently go unaddressed. The absence of information and support often leads to increased distress. Incorporating open discussions about sexual health into routine care, along with accessible educational resources, is vital to ensure holistic, patient-centred support. These findings highlight the need for comprehensive strategies that reflect the varied and individual needs of this patient population.

B7. From Pain to Psychological Distress: Comparative Effectiveness of Antispasmodics and Antidepressants in Irritable Bowel Syndrome – Systematic Review and Network Meta-analysis

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Background: Antispasmodics and antidepressants are frequently used in irritable bowel syndrome (IBS), addressing both abdominal symptoms and psychological comorbidities. Nevertheless, evidence directly comparing their efficacy across symptom domains remains limited. This systematic review and network meta-analysis evaluated the comparative effectiveness of these agents on abdominal pain, psychological outcomes, IBS symptom severity, and quality of life (QoL).

Methods: A systematic search of PubMed, EMBASE, and Scopus was performed to identify randomized controlled trials assessing antispasmodics and antidepressants in IBS. Eligible studies underwent quality assessment and were synthesized using network meta-analysis. Standardized mean differences (SMDs) with 95% confidence intervals (CIs) were calculated for pain (VAS), anxiety, depression, IBS Severity Scoring System (IBS-SSS), and QoL.

Results: Twenty-nine studies were included. Pain (VAS) was significantly reduced by imipramine (SMD –34.06; 95% CI –51.89 to –16.22) and alverine/simethicone combination (SMD 6.23; 95% CI -9.93 to -2.53), while mebeverine and AnisEncap demonstrated benefits in IBS-type subgroups. For anxiety, the most substantial improvements were observed with flupentixol–melitracen (SMD –6.63; 95% CI –10.13 to –3.13), followed by peppermint oil, small-intestinal release (SMD –2.03; 95% CI –3.96 to –0.10), fluoxetine (SMD –2.00; 95% CI –3.98 to –0.02), and vortioxetine (SMD –0.66; 95% CI –1.16 to –0.16). Depressive symptoms improved most with imipramine (SMD –9.40; 95% CI –10.29 to –8.51), followed by venlafaxine (SMD –6.70; 95% CI –10.64 to –2.76), flupentixol–melitracen (SMD –6.06; 95% CI –9.14 to –2.98), desipramine (SMD –4.33; 95% CI –5.89 to –2.77), and vortioxetine (SMD –1.28; 95% CI –1.96 to –0.60). IBS-SSS scores improved significantly only with amitriptyline (SMD –23.70; 95% CI –43.27 to –4.13). For QoL, the largest gains were observed with otilonium bromide (SMD 30.90; 95% CI 26.62–35.18), followed by venlafaxine (SMD 29.41; 95% CI 10.32–48.50), amitriptyline (SMD 13.33; 95% CI 4.89–21.77), and Cumin Sofouf (SMD 8.65; 95% CI 1.54–15.76).

Conclusions: This network meta-analysis highlights the distinct therapeutic profiles of antispasmodics and antidepressants in IBS. Imipramine and alverine/simethicone were most effective in reducing abdominal pain, while flupentixol–melitracen, peppermint oil, fluoxetine, and vortioxetine showed the strongest anxiolytic effects. For depression, imipramine, venlafaxine, flupentixol–melitracen, desipramine, and vortioxetine were effective. Amitriptyline uniquely improved IBS-SSS, whereas otilonium bromide, venlafaxine, amitriptyline, and CuminSofouf provided the greatest QoL benefits. These findings clarify the comparative efficacy of available pharmacotherapies and may guide tailored treatment strategies for IBS patients.

Key words: irritable bowel syndrome (IBS) – antispasmodics; antidepressants – pain; quality of life (QoL).

B8. Seric Eosinophilic Cationic Protein: Elevated in Ulcerative Colitis but not in Crohn's Disease

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Introduction: Crohn's disease and ulcerative colitis are both classified as inflammatory bowel diseases (IBD). Their patophysiology is complex, having multiple imulological and inflammatory factors influencing their evolution. Through the release of eosinophilic cationic protein (ECP), eosinophils may contribute to mucosal injury. The aim of our study was to find out if serum ECP levels can help differentiating between the two major IBD subtypes.

Methods: We conducted a cross-sectional study including 50 patients with IBD (20 Crohn's disease, 30 ulcerative colitis) and 32 healthy controls. Determination of serum ECP levels was measured by enzyme-linked immunosorbent assay the obtained results were compared between groups.

Results: A clear divergence emerged between the two IBD subtypes. The highest levels of seric ECP were remarked in ulcerative colitis patients (median of 24,224 pg/mL), results significantly elevated compared to healthy controls (16,807 pg/mL, p=0.008). A modest increase was seen in Crohn's disease patients (median 18,496 pg/mL), not reaching statistic difference compared to controls (p=0.418). We compared also ulcerative colitis and Crohn's disease: higher levels were seen in ulcerative colits, but the comparison did not reach statistical.

Discussion: Serum ECP presented significant higher levels in ulcerative colitis, but not in Crohn's disease, rising the hypotesis that there is a fundamental difference in eosinophil-driven inflammation between the two IBD subtypes. These findings support the concept of disease-specific inflammatory pathways in IBD, with eosinophils playing a particularly strong role in ulcerative colitis. ECP measurement may help in establishing a diagnosis and guide further therapeutic management. Further studies should clarify whether ECP can predict outcomes or serve as a practical biomarker in ulcerative colitis.

B9. Ferritin-Serum Iron Relationship in Enteropathy Patients Evaluated by Capsule Endoscopy

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Introduction. Iron deficiency is one of the most common problems worldwide, with non-anemic deficiency occurring several times more frequently than overt anemia. Because impaired absorption is often involved, systematic evaluation of the small intestine plays a key role in clinical practice. This study investigated the effect of different forms of enteropathy on disturbances of iron metabolism, focusing on serum iron and ferritin levels.

Materials and methods. A prospective study was performed including patients with unexplained iron deficiency who underwent capsule endoscopy. A standardized protocol and dedicated database were developed to ensure consistent data collection. During the study visit, participants completed a structured questionnaire, provided blood samples, and underwent an iron absorption test. Eligibility required adult age, ability to cooperate, absence of contraindications to capsule endoscopy, and prior completion of upper and lower endoscopy. Additional criteria included availability of complete blood count, serum iron, and ferritin results within four weeks before capsule endoscopy, as well as confirmation of latent or overt iron deficiency of unclear etiology.

Results. Fifty-three patients were enrolled, of whom 45 (85%) were women and 8 (15%) were men, with a median age of 36 years (range 18-79). Enteropathy was identified in 42 patients (79%), and iron absorption disturbances were found in 22 (41.5%). No significant clinical differences were observed between enteropathy subtypes. Statistical analysis showed that enteropathy had a significant effect on both serum iron ($F = 4.23$, $p = 0.005$) and ferritin ($F = 5.09$, $p = 0.002$). The direct link between iron and ferritin, however, did not reach statistical significance.

Conclusions. Enteropathy was significantly associated with altered iron and ferritin parameters, independent of subtype. These findings underscore the importance of evaluating small bowel pathology in patients with unexplained iron deficiency and highlight the need for larger studies to confirm and extend these results.

C1. Applying the combinatorial Metabolic Dysfunction-associated Steatotic Liver Disease nomenclature to patients with Hepatitis C Virus: clinical, metabolic, and virological insights from an Italian cohort

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Introduction: Hepatitis C virus (HCV) and metabolic dysfunction-associated steatotic liver disease (MASLD) often coexist, sharing inflammatory and metabolic mechanisms that worsen liver damage. In 2024, the term "combinatorial MASLD" (cMASLD) was proposed to describe MASLD in the context of other chronic liver diseases, including viral hepatitis, to improve clinical stratification. However, data on its applicability in HCV populations remain limited. This study aimed to evaluate HCV-infected patients using the cMASLD nomenclature.

Methods: We conducted a cross-sectional study involving 169 HCV-infected patients evaluated at two Centers in Calabria, Italy (2020–2024). Patients were stratified as HCV-only (n=103), HCV with liver steatosis (n=14), or cMASLD (n=52). Clinical, anthropometric, and laboratory data were collected. Transient elastography was used to assess steatosis and fibrosis. Statistical analyses included ANOVA with LSD post-hoc, chi-square test, and logistic regression to identify factors independently associated with cMASLD, considering $p<0.05$ as significant.

Results: Anthropometric and clinical data showed how BMI and waist circumference were significantly higher in cMASLD vs. HCV-only and steatosis groups (28±8 vs. 24±4 vs. 24±4 kg/m^2; $p<0.001$; 105±20 vs. 94±11 vs. 96±9 cm; $p<0.001$), as well as, controlled attenuation parameter and liver stiffness (298±41 vs. 179±45 vs. 284±26 dB/m; $p<0.001$; 7±2 vs. 6±2 vs. 7±2 kPa; $p=0.003$). Overall, the cardiometabolic comorbidities were more prevalent in cMASLD group (n=19, 36% vs. n=52, 100% vs. 0; $p<0.001$). At the same time, HCV RNA levels were higher in cMASLD vs. HCV-only ($4.8\times10^6\pm7.8\times10^6$ vs. $2.5\times10^6\pm3.7\times10^6$ UI/mL; $p=0.014$) and genotype 3 was more frequent in the same group (n=13, 25% vs. n=15, 15% vs. n=2, 14%; $p<0.001$). Finally, in the multivariate logistic regression model adjusted for age, gender, and fibrosis, HCV RNA was independently associated with the presence of cMASLD (OR=1.480; 95% CI: 1.010-2.170; $p=0.045$).

Conclusions: The cMASLD definition helps identify a distinct viro-metabolic profile among HCV patients, supporting its clinical utility in personalized care.

C2. Sneak peek on effectiveness, safety and pharmacoeconomics of anti-obesity medicines

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Pharmacological interventions for obesity have evolved significantly, with six medicines currently approved across various countries as adjuncts to lifestyle modifications: orlistat, phentermine, naltrexone/bupropion, liraglutide, semaglutide, and tirzepatide. Among these, tirzepatide has demonstrated the highest efficacy, achieving a median weight loss of 20.9% in clinical trials (SURMOUNT-1 in-trial data), an outcome comparable to certain bariatric surgeries. In contrast, semaglutide, a glucagon-like peptide-1 (GLP-1) receptor agonist, has been associated with a median weight reduction of 14.9% (STEP 1 in-trial data) and has demonstrated cardiovascular benefits by reducing major adverse cardiovascular events (MACE) in the SELECT trial.

GLP-1 receptor agonists generally exhibit mild to moderate, transient adverse effects (primarily nausea and vomiting), related to their pharmacological action. However, our EudraVigilance analysis reveals distinct trends in serious adverse drug events (ADEs) across anti-obesity medicines. While all approved medicines experienced an initial surge in ADE reports, only semaglutide continued to exhibit a sustained increase in serious ADE reporting (annual change +67.1%, $p<0.001$). Conversely, liraglutide demonstrated a continuous increase in non-serious ADE reports (annual change +33.8%, $p<0.001$), whereas other anti-obesity drugs, including semaglutide, showed either negative trends or no significant increase in non-serious ADEs after the initial post-marketing period. These findings underscore the need for continued pharmacovigilance and long-term safety monitoring.

A systematic literature review reveals a critical gap in direct and indirect pharmacoeconomic evaluations comparing semaglutide and tirzepatide. While indirect evidence suggests tirzepatide may be more cost-effective than semaglutide, definitive conclusions remain elusive due to the absence of robust comparative economic analyses. Future research should incorporate key factors, including MACE benefits, renal advantages, and obesity-related complications (e.g., obstructive sleep apnea, metabolic dysfunction-associated steatotic liver disease, osteoarthritis, etc.), into incremental cost-effectiveness ratio (ICER) calculations.

As ongoing clinical trials continue to generate robust data on efficacy, safety, and economic viability, the future of obesity pharmacotherapy holds transformative potential beyond weight loss. Addressing key metabolic dysfunctions and reducing long-term morbidity and mortality associated with obesity-related diseases will be critical in shaping future treatment paradigms.

Key words: anti-obesity medicines - liraglutide - pharmacoeconomics - real-world evidence - semaglutide - tirzepatide.

C3. Potential protective effects of raspberry seed polyphenols in MASLD – molecular docking study

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Introduction: Metabolic disfunction-associated liver disease (MASLD) has a rising incidence worldwide and represents a global health issue. Current therapeutical options are mostly based on diet regimens and lifestyle interventions. Recent studies suggests that polyphenol-rich diets may be used in the prevention and treatment of MASLD. Therefore, identifying dietary polyphenols may have potential protective effects in MASLD management.

Aims and Methods: Molecular docking was performed to assess the intermolecular interactions of 5 proteins involved in signaling pathways of MASLD pathogenesis: liver X receptor alpha and beta (LXR-α, LXR-β), peroxisome proliferator-activated protein alpha and gamma (PPAR- α and PPAR- γ) and 3-hydroxy-3-methylglutaryl-Coenzyme A (HMG-CoA) reductase, with 11 raspberry seeds polyphenols (caffeic acid, catechin, ellagic acid, epicatechin, epicatechin gallate, ferulic acid, gallic acid, hyperoside, paracoumaric acid, quercitrine, and vanillic acid). Protein structures from the Protein Data Bank were adjusted to physiological pH, while polyphenol structures were optimized in implicit water solvent. Docking was performed using AutoDock Vina 1.2 with whole-protein search space and exhaustiveness of 25.

Results: The docking simulations revealed that 6 polyphenols showed relatively high binding affinity to MASLD-related proteins. Particularly strong was the binding of several polyphenols to HMG-CoA reductase. The strongest interaction was observed between epicatechin gallate and HMG-CoA reductase, with excellent docking score of -10.3 kcal/mol. This binding involved conventional hydrogen bonds with His448 and Asp457, weaker C–H/O interactions with Ala306, Asn449, and Lys452, and C–H/π interactions with Ala438 and Arg450. Quercitrin and ellagic acid also exhibited relatively high affinity for HMG-CoA reductase. Additional strong interactions included epicatechin gallate with PPAR-γ, hyperoside with PPAR-α, and catechin with both LXR-α and LXR-β.

Conclusion: This molecular docking study indicates that several raspberry seed polyphenols strongly interact with MASLD-related proteins, suggesting their potential role in the prevention and treatment of MASLD.

Key words: MASLD - polyphenols - molecular docking.

C4. Platelet proteomics- a new perspective in MASLD pathogenesis

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Background & Aims: Platelets play key roles in liver homeostasis, fibrosis, and malignancy beyond hemostasis. In metabolic-associated steatotic liver disease (MASLD), platelet proteomic signatures may provide insights into disease progression. This study aimed to characterize platelet proteomic alterations in MASLD patients and identify biomarkers reflecting intrahepatic processes.

Methods: We included 25 MASLD patients undergoing hepatic venous pressure gradient (HVPG) measurement. Blood samples were collected from the suprahepatic vein and liver

sinusoids, followed by platelet isolation and proteomic analysis using mass spectrometry. Protein abundance was compared between peripheral and sinusoidal blood, stratified by fibrosis stage and platelet count.

Results: A total of 1,520 proteins were identified, with 88 proteins significantly differing between sinusoidal and suprahepatic blood. Notably, HMGB2, involved in transcriptional regulation, inflammatory responses and fibrosis, was enriched in sinusoidal blood. NPM1, essential for ribosome biogenesis, and DOK1, a negative regulator of oncogenic pathways, were also increased. Advanced fibrosis and cirrhosis showed enrichment of MACROH2A1, a histone variant maintaining chromatin architecture, involved in lipid metabolism and in fatty liver-associated HCC development, and PRF1, a cytotoxic granule protein. Proteomic alterations were particularly prominent in patients with features of microvascular abnormalities, indicating shared immune activation and vascular injury mechanisms. A clear proteomic distinction was observed in patients with perisinusoidal fibrosis and obliterative venopathy, with proteins such as TGFB1 and DOK1 being more abundant in sinusoidal blood derived platelets.

Conclusion: Platelet proteomics reveals dynamic changes in MASLD, particularly in fibrosis and cirrhosis. The observed protein shifts provide insights into fibrogenesis, vascular remodeling, and oncogenic transformation, highlighting their potential as biomarkers for MASLD progression. Furthermore, the observed overlap in platelet proteomic patterns between MASLD and porto-sinusoidal vascular disorder supports the existence of shared mechanisms of immune-mediated vascular injury.

C5. Liver Fraility Index in Patients with Alcoholic and Non-Alcoholic Liver Cirrhosis

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Introduction: Liver fraility index (LFI) is a tool, used to quantitatively assess the preservation of physical performances in patients with chronic liver disease (CLD). Fraility is a complication of CLD that significantly affects patient´s survival and their ability to cope with stressors. LFI has an important role in selecting patients from the waiting list for liver transplantation. Based on the LFI, there are three groups of patients: robust, pre-frail, and frail.

Methods: The observational study involving 23 hospitalized patients, stratified by the etiology of CLD into two groups, alcoholic (ALD) and non-alcoholic (NALD), matched by age and MELD score. LFI and hand grip (HG) values were assessed, taking into account reference values according to sex and age.

Results: Of the 23 patients, 12 had ALD and 11 had NALD. The first group (FG) had a mean age of 55.4 years, and the second group (SG) 57.5 years, indicating no statistically significant difference in age between them, p-value 0.655. The mean MELD score for the FG and SG was 15.67 (SD 4.29) and 18.25 (SD 8.65), respectively, with a p-value of 0.384. The mean LFI for the group with ALD was 3.52 (SD 0.64), and for the NALD group it was 3.61, (SD 0.61), indicating no statistically significant difference between the two groups (p-0.778). In FG 9 patients (81.2%) was pre frail, 2 (18.8%) robust, in SG 10 (76.9%) pre frail, 2 robust (15.4%), and 1 (7.7%) frail. Furthermore, when hand grip (HG) strength was assessed separately, no significant difference was observed between the two patient groups, as the mean values were 29.83 kg (SD 7.02) for ALD and 30.63 kg (SD 10.15) for NALD, (p-0.825).

Discussion: As an important independent prognostic parameter, LFI did not show a significant difference in this patient sample with respect to the etiology of CLD.

Key words: liver fraility index – hand grip – chronic liver disease.

C6. Tick-borne turmoil: Hepatitis B Reactivation After Tenofovir Discontinuation in Lyme Disease – Case report

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Introduction: Immunomodulatory therapies, often overseen by non-hepatologists, may lead to inadequate awareness of hepatitis B virus (HBV) reactivation and relapse risks, increasing chances of missed monitoring or improper HBV treatment assessment. We describe a case of chronic HBV relapse following abrupt Tenofovir discontinuation and corticosteroid treatment due to Lyme disease progression in a patient with more than 1 year of sustained HBV suppression.

Case presentation. A 44-year-old male presented to the hospital with prolonged fever, fatigue, dark urine and pronounced joint pain. Two months prior, he was diagnosed with a late disseminated stage of Lyme disease, manifested with arthritis, myocarditis and neuroborreliosis, treated with high dosages of corticosteroids, as antibiotic therapy proved to be ineffective. Concomitantly, the patient was known to have chronic HBV, virologically suppressed for one year on nucleoside analogues (NA), which the patient was unable to continue due to severe borreliosis, multiple intensive care admissions. Laboratory investigations revealed a severe cytolytic, inflammatory syndrome and mild cholestasis. Initial serological tests, including acute hepatitis panel for hepatitis A, C, and D, autoimmune workup, and bacterial infections, were negative. However, a later HBV DNA test showed significantly elevated levels. The patient was promptly initiated on NA with

follow-up labs that showed near-complete normalisation in transaminases at discharge. **Discussion.** A sudden withdrawal of NA could result in earlier and more vigorous relapse following treatment cessation, as seen in this case. Nonetheless, corticosteroid treatment in high dosages, for prolonged periods of time, has long been recognised as a major trigger for HBV replication.

Conclusion. Potentially harmful clinical relapse needs to be identified early and can be effectively terminated by reintroducing NA treatment. This case emphasises the need for coordinated multidisciplinary care to mitigate risks of viral reactivation in complex infectious disease settings.

Key words: Lyme disease – hepatitis B reactivation – immunosuppression therapy.

C7. Efficacy and Safety of Atezolizumab and Bevacizumab in the Treatment of Advanced Hepatocellular Carcinoma: Experience from a Tertiary Center

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Introduction: Hepatocellular carcinoma (HCC) accounts for 75-85% of primary liver cancers and is considered the third leading cause of cancer-related death worldwide[1]. Atezolizumab-Bevacizumab (Atezo-Bev) has been established as first-line regimen for advanced HCC. High variability in adverse events (AE) was reported across studies[2]. In this study we aimed to compare the efficacy and safety of Atezolizumab-Bevacizumab versus Sorafenib as a first-line treatment in patients with unresectable HCC.

Method: We carried out a prospective analysis of patients treated with Atezolizumab-Bevacizumab and compared with retrospective data of patients treated with Sorafenib. Treatment response was evaluated at 3- and 6-months follow-up according to the Response Evaluation Criteria in Solid Tumors (RECIST) version 1.1.

Results: A total of 70 patients were treated with either Sorafenib (n=40) or Atezolizumab-Bevacizumab (n=30) for at least six months from April 2022-August 2025. The mean age of all patients was 67.6 years (SD 9.51), 71% were male. 58.57% had cirrhosis (Child-Pugh A). Hypertension was the most common comorbidity (53%). The most frequent AE in the Atezo-Bev group were diarrhea (40%), elevated liver transaminases (36.6%), fever (26.6%), bleeding (20%), leucopenia (16%). The most common AE in patients treated with Sorafenib were diarrhea (45%), uncontrolled hypertension (40%), elevated liver transaminases (40%), rash (27%), hand-foot syndrome (18%). There was no statistically significant difference in the proportion of diarrhea between the Atezo-Bev and Sorafenib groups (p = 0.472). Fever was more common in Atezo-Bev cohort (p<0.047). Dose modification of Bevacizumab occurred in two patients, due to bleeding or rapid tumor necrosis and fever. Four patients with cirrhosis in the Atezo-Bev group had severe AE (worsening liver function) requiring hospitalization and leading to treatment discontinuation. Out of 26 patients who continued with treatment, stable disease after 6 months (RECIST-SD) was noted for 73.07% of patients.

Conclusion: The AE rate was similar between our cohort and other studies. Most of the reported AE in the cohort receiving Atezolizumab and Bevacizumab were mild requiring no drug interruption or dose modification. More data on long-term safety and effectiveness of Atezolizumab-Bevacizumab are needed.

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C8. Fusion Imaging with Contrast-Enhanced Ultrasound for Improved Detection and Real-Time Guidance of Percutaneous Microwave Ablation of Small Liver Tumors

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Background: Percutaneous microwave ablation (MWA) is a curative option for small (<3 cm) liver tumors not suitable for resection. Tumor detectability on B-mode ultrasound (US) often limits feasibility. This study assessed the role of CT/MRI-based fusion imaging (FI), combined with contrast-enhanced ultrasound (CEUS), in improving lesion visibility and providing real-time guidance during MWA.

Methods: We retrospectively analyzed 83 patients with 91 liver tumors treated between January 2022 and January 2025. All lesions underwent B-mode US, CEUS, and CT/MRI-FI evaluation. Tumor detectability and feasibility of MWA were compared using McNemar and Fisher's Exact tests. Ablation effectiveness was defined as a ≥10 mm safety margin.

Results: The cohort included 65 hepatocellular carcinomas (71.4%), 15 metastases (16.6%), and 10 cholangiocarcinomas (11%). Mean tumor size was 17.2 mm (median 16 mm; range 5–30 mm). Fusion + CEUS identified 53/83 nodules versus 26 with B-mode US alone (OR = 3.87, p = 0.000046). Overall detectability increased from 30.1% (B-mode US) to 96.1%

with FI, while MWA feasibility improved by 22.9% ($p < 0.05$). Technical success of FI-guided ablation was 100%. Effective ablation, defined by adequate margins, was achieved in 56.8% of cases.

Conclusions: CT/MRI-FI, particularly when combined with CEUS, significantly improves detection of small liver tumors and ensures real-time guidance for percutaneous MWA. This approach nearly quadruples lesion identification probability, increases feasibility, and enhances ablation effectiveness, with clear clinical benefit in early-stage liver cancer management.

Key words: liver tumors - fusion imaging - CEUS - real-time guidance - microwave ablation.

C9. Pancreatic Cancer-Associated Hyperglycemia: Early Indicator or Disease Sequela? A Single-Center Analysis

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Introduction: Pancreatic cancer (PC) is one of the most aggressive malignancies, with a five-year survival rate below 10%. It is frequently associated with metabolic disturbances such as hyperglycemia and type 2 diabetes mellitus (T2DM). The temporal relationship between hyperglycemia and PC remains unclear—whether it serves as an early clinical sign or is a result of tumor progression. This study aims to investigate the prevalence of hyperglycemia and T2DM in PC patients and explore their distribution across cancer stages.

Methods: This retrospective analysis included 42 patients with histologically confirmed pancreatic ductal adenocarcinoma who underwent the Whipple procedure at a single tertiary center. All patients underwent preoperative contrast-enhanced computed tomography and CA 19-9 serum tumor marker assessment. Clinical data, including T2DM status and cancer staging, were collected and analyzed.

Results: Of the 42 patients, 14 (33.3%) had pre-existing T2DM at the time of diagnosis. The overall stage distribution was: stage IA – 5 (11.9%), IB – 4 (9.5%), IIA – 11 (26.2%), IIB – 8 (19.0%), and stage III – 14 (33.3%). Among patients with T2DM, the majority were in earlier stages: IA – 5, IB – 4, IIA – 2, IIB – 2, and III – 1. All patients had elevated CA 19-9 levels (>37 U/mL).

Conclusion: The high prevalence of T2DM in early-stage PC suggests that hyperglycemia may precede clinical detection of the tumor and could serve as an early marker rather than merely a consequence of advanced disease. Recognizing pancreatic cancer-associated diabetes as a distinct clinical entity may support earlier diagnosis and improve patient outcomes. Further prospective research is needed to clarify causality and inform screening strategies.

Key words: pancreatic cancer - hyperglycemia - type 2 diabetes mellitus - early detection - metabolic biomarker.

C10. Severe Acute Pancreatitis: Why Obesity is More Than Just a Comorbidity – Clinical Observations and Pathomechanistic Explanations

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Introduction: Severe acute pancreatitis (SAP) is a life-threatening condition with high morbidity and mortality. Obesity has long been seen as a risk factor but is increasingly recognized as an independent catalyzer of disease aggravation. Mechanistic insights remain limited, yet evidence points to obesity as an active amplifier of inflammation and organ failure. The most recent meta-analysis on this topic was published more than eight years ago.

Methods: We screened 2,225 records (1990–2025) and included 28 studies with 18,062 patients with acute pancreatitis of all etiologies in our meta-analysis. Primary endpoints were severe pancreatitis and mortality, stratified by BMI cut-offs at 25 and 30 kg/m². In addition, a qualitative literature review was performed to summarize current pathomechanistic concepts linking obesity to worse outcomes.

Results: Fourteen studies (14,921 patients) assessed the association of BMI ≥25 with AP-associated severity. The pooled OR was 3.24 (95% CI: 2.07–4.42; $p < 0.001$). For BMI ≥30, the pooled OR was 2.18 (95% CI: 1.55–2.81; $p < 0.001$), confirming a significant impact of obesity on the course of AP. Eight studies assessed the association of BMI ≥25 with AP-associated mortality. The pooled OR was 2.80 (95% CI: 1.18–4.42; $p < 0.001$), indicating significantly higher risk of death compared with BMI <25.

Discussion/Conclusion: Our results underline the impact of obesity on the course of acute pancreatitis. The strong correlation with severity and mortality highlights the urgent need for pathomechanistic understanding of this deadly duo. Recent studies point to direct lipid toxicity, impaired macrophage activity, and leptin-driven mucosal damage as potential drivers of obesity-related disease aggravation.

C11. Clinical Characteristics and Survival Outcomes in Non-Severe Alcohol-Related Hepatitis

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Background & Aims: There are limited data regarding non-severe alcohol-related hepatitis, which is traditionally

considered a less lethal condition with no established specific treatment, and its impact on patient outcomes remains poorly defined. The objective of this study was to characterize patients with non-severe alcohol-related hepatitis and to evaluate their medium-term survival.

Method: We prospectively included 270 patients with active alcohol consumption and biopsy-proven alcohol-related hepatitis between 2015 and April 2025. Disease severity was determined using the Maddrey score, with ≥32 indicating severe disease. A total of 15 patients were excluded due to a follow-up period shorter than 6 months.

Results: Among the 42 patients with non-severe alcohol-related hepatitis, 71.43% were male, with a median age of 50 years. Clinical decompensation was common (70.7%), including ascites in 67.85%, hepatic encephalopathy in 25%, and variceal bleeding in 12.20%. Infections on admission were identified in 8 patients (19.51%). MELD score distribution was as follows: MELD <15: 13 patients (30.25%), MELD 15–20: 23 patients (54.76%), MELD 20–25: 3 patients (7.14%), MELD 25–30: 3 patients (7.14%).

At 6 months, patients with non-severe alcohol-related hepatitis demonstrated a survival rate of 80.7% (95% CI: 70–91.4%), which was significantly higher than that of patients with severe disease (63.5%, 95% CI: 57.7–69.3%; $p < 0.05$).

Conclusion: Non-severe alcohol-related hepatitis is associated with impaired 6 months survival, indicating that improved management strategies are needed for these patients.

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