GASTROENTEROLOGY
Istanbul, Turkey 2023

13th INTERNATIONAL SYMPOSIUM of GASTROENTEROLOGY

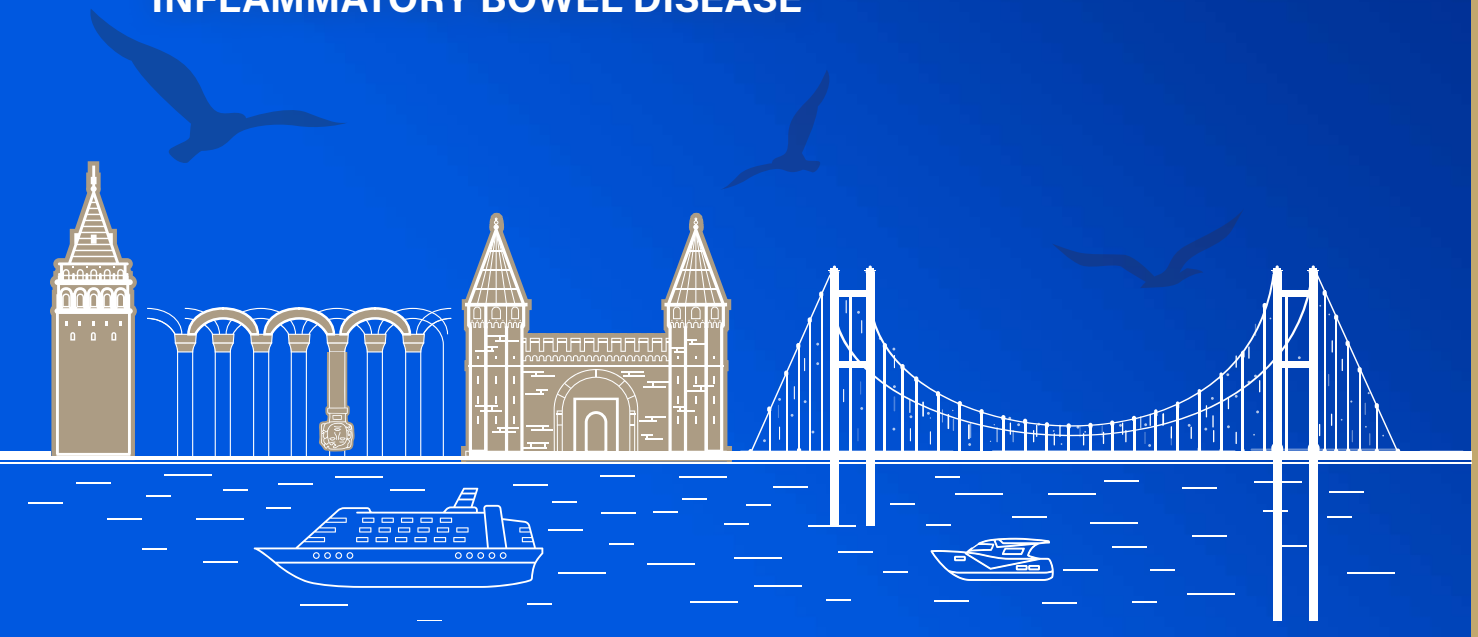
Istanbul, Turkey

23–25/11/2023

Swissôtel The Bosphorus

Main Topics:

ANTISECRETORY THERAPY
NEURO-MOTILITY DISORDERS
FATTY LIVER
THE LIVER & METABOLIC SYNDROME
BILIARY STRICTURES CROSS-TALK
INFLAMMATORY BOWEL DISEASE



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WE INVITE YOU TO ISG 2023

On behalf of the Czech Society of Gastroenterology, I would like to cordially invite you to the 13th International Symposium of Gastroenterology, which will be held this year in Istanbul, Turkey. The main topics to be discussed will be the latest treatment modalities for neuromotility disorders, antisecretory therapy, IBD, fatty liver disease and biliary system disorders.

The symposium will feature presentations by the world's leading experts. The combination of the content, the high quality and experience of the speakers, your highly valued participation, and the attractiveness of the chosen venue will certainly make the symposium an inspiring and memorable meeting of minds and ideas.

See you in Istanbul!

Sincerely,

Assoc. Prof. Ilja Tachecí, MD., PhD.

Programme

13th International Symposium of Gastroenterology

23–25 November 2023
Swissôtel The Bosphorus, Vişnezade, Acısu Sokağı No:19, İstanbul, Turkey

Thursday: 23th November 2023

09:00–09:10	**Opening 13th International Symposium of Gastroenterology** Ilja TACHECÍ, *Czech Republic*
09:10–10:50	**Session I: Antisecretory Therapy – Challenges from Daily Practice** **Chairs:** Ilja TACHECÍ, *Czech Republic* Maura CORSETTI, *United Kingdom*
09:10–09:30	**Anti-secretory therapy in hospital and ambulatory patients** Ilja TACHECÍ, *Czech Republic*
09:30–09:50	**Different countries – different approaches in a treatment of reflux disease** Jarosław REGUŁA, *Poland*
09:50–10:10	**Proton pump inhibitor's adverse effects – facts or fiction?** Martin BORTLÍK, *Czech Republic*
10:10–10:30	**Anti-secretory therapy and microbiome** Lukáš BAJER, *Czech Republic*
10:30–10:50	**Future directions (prokinetics, H2RA, PCABs)** Maura CORSETTI, *United Kingdom*
10:50–11:20	**Coffee break**
11:20–13:00	**Session II: Neuro-motility Disorders – Revealing the Clinical Consequences** **Chairs:** Agata MULAK, *Poland* Jan TACK, *Belgium* Peter BÁNOVČIN, *Slovakia*

11:20–11:40	**East-European consensus on management of FD** Jan TACK, *Belgium*
11:40–12:00	**Specialistic diagnostics of motility disorders of upper GIT – where are we?** Dorota WAŚKO-CZOPNIK, *Poland*
12:00–12:20	**And what about DGR** Jiří DOLINA, *Czech Republic*
12:20–12:40	**When GERD overlaps with dyspepsia** Anita GĄSIOROWSKA, *Poland*
12:40–13:00	**Hypersensitive esophagus** Adam PRZYBYLKOWSKI, *Poland*
13:00–14:00	**Buffet lunch**
14:00–16:00	**Session III: Biliary stricture Cross-Talk** **Chairs:** Ondřej URBAN, *Czech Republic* Tomáš HUCL, *Czech Republic*
14:00–14:20	**PSC and other precancerous conditions – are they really out of reach?** Lars AABAKKEN, *Norway*
14:20–14:40	**Indeterminate biliary stricture – probe, FISH or scope?** Ondřej URBAN, *Czech Republic*
14:40–15:00	**Tissue is an issue – stricture through the microscope** Ondřej DAUM, *Czech Republic*
15:00–15:20	**Cholangiocarcinoma endoscopy therapy – heating and/or stenting** Tomáš HUCL, *Czech Republic*
15:20–15:40	**Surgical Treatment of Cholangiocarcinoma: Resection vs. Transplantation** Martin OLIVERIUS, *Czech Republic*
15:40–16:00	**Cholangiocarcinoma oncological therapy** Beatrice MOHELNÍKOVÁ DUCHOŇOVÁ, *Czech Republic*
16:00–16:30	**Coffee break**

Friday: 24th November 2023

9:00–10:20	**Session IV: Fatty Liver – Deeper Insight Into the Burden of the Issue** **Chairs:** Arun SANYAL, *USA* Marek HARTLEB, *Poland* Radan BRŮHA, *Czech Republic*
9:00–9:20	**SLD: Easy diagnostics of liver damage, experience** Radan BRŮHA, *Czech Republic*
9:20–9:40	**Liver enzymes and metabolites elevation an important factor in fatty liver disease** Libor VÍTEK, *Czech Republic*
9:40–10:00	**Bridging NAFLD and MAFLD: Current epidemiology and future trends** Arun SANYAL, *USA*
10:00–10:20	**Different clinical manifestations of SLD** Krzysztof TOMASIEWICZ, *Poland*
10:20–10:50	**Coffee break**
10:50–12:30	**Session V: The Liver and Metabolic Syndrome – Shed Light on the Fatty Liver Disease** **Chairs:** Krzysztof TOMASIEWICZ, *Poland* Sylvia DRAŽILOVÁ, *Slovakia* Libor VÍTEK, *Czech Republic*
10:50–11:10	**Fatty liver related co-morbidities** Alexander NERSESOV, *Kazakhstan*
11:10–11:30	**Liver, the silent culprit behind cardiovascular mortality** Jan PIŤHA, *Czech Republic*
11:30–11:50	**Liver and insulin resistance in type 2 diabetes** Václav ŠMÍD, *Czech Republic*
11:50–12:10	**Metabolic dysfunction-associated steatotic liver disase (MASLD) and hepatocellular carcinoma (HCC): clinical challenges of an intriguing link** Marek HARTLEB, *Poland*
12:10–12:30	**Liver Transplantation in Metabolic Syndrome** Wojciech LISIK, *Poland*
12:30–13:30	**Buffet lunch**

13:30–15:10	**Session VI: Inflammatory Bowel Disease – Lessons from Real World Data** **Chairs:** Grażyna RYDZEWSKA, *Poland* Milan LUKÁŠ, *Czech Republic*
13:30–13:50	**Endoscopic therapy of Crohn's disease** Martin BORTLÍK, *Czech Republic*
13:50–14:10	**Gastroenterological aspects of perinatal care in IBD – from guidelines to clinical practice**? Piotr EDER, *Poland*
14:10–14:30	**IBD care: Western vs. Eastern Europe** Zuzana ZELINKOVÁ, *Slovakia*
14:30–14:50	**Small molecules in the treatment of IBD** Dana ĎURICOVÁ, *Czech Republic*
14:50–15:10	**Strategies to optimized treatment outcomes in IBD** Walter REINISCH, *Austria*
15:10–15:20	**Wrap-Up and Closing 13th International Symposium of Gastroenterology** Ilja TACHECÍ, *Czech Republic*
15:20–15:50	**Coffee break**

Saturday: 25th November 2023

9:00–13:00	**Workshop – Kazakhstan**
13:00–14:00	**Buffet lunch**

CHAIRMAN & SPEAKER

Ilja Tachecí

2nd Dpt of Internal Medicine – Gastroenterology,
University Hospital in Hradec Kralove, Czech Republic
Charles University Medical Faculty in Hradec Kralove, Czech Republic

Doc. Ilja Tachecí, M.D., Ph.D., received his medical degree from the Faculty of Medicine in Hradec Králové, Charles University, Czech Republic, in 1999. He obtained his specialist diplomas in internal medicine in 2002 and in gastroenterology in 2006, both from the Institute for Postgraduate Medical Education, Prague, Czech Republic. In 2010, he earned his doctoral degree from the Faculty of Medicine in Hradec Králové, Charles University. At the same university, he was appointed Associate Professor in 2018. He works at the Second Department of Internal Medicine, University Hospital Hradec Králové, where he has held the post of Department Head since 2021. Docent Tachecí focuses his research on small bowel diseases, third-space endoscopy, and experimental endoscopy, particularly capsule endoscopy. He is the author or coauthor of over 100 articles, 6 book chapters, and 4 monographs. His work has been recognized with the Best Monograph Award of the Czech Society of Gastroenterology in 2008. In the same year, he won the first prize for best work in toxicology awarded by the Czech Society for Experimental and Clinical Pharmacology and Toxicology. He has served as the President of the Czech Society of Gastroenterology since 2022. Among other professional associations, docent Tachecí is a member of the European Society of Gastrointestinal Endoscopy, the National Societies Forum of the United European Gastroenterology, and the American Society for Gastrointestinal Endoscopy.

ANTI-SECRETORY THERAPY IN HOSPITAL AND AMBULATORY PATIENTS

Medications that reduce stomach acid production, specifically anti-secretory therapy, rank among the top prescribed worldwide. Proton pump inhibitors (PPIs), with omeprazole introduced in 1979 as a notable example, have been popular for decades. Their effectiveness have largely overshadowed alternatives like H2 blockers. In places like the UK and Denmark, around 8% of the populace take PPIs.

Initially, these drugs were deemed extremely safe, leading to broadened usage and easy accessibility. This misconception resulted in prolonged use, with many exceeding the recommended 4–8 weeks. Shockingly, in England, about a quarter of PPI users continue the medication beyond a year, and up to 85% of PPI users don't have a solid indication for long-term use, highlighting overuse.

However, rising evidence shows a myriad of different complications, especially with extended use (PPI-associated adverse events). This has prompted calls to re-evaluate the lenient stance on these drugs, focusing on appropriate usage, alternatives, dosages, and treatment duration. The unchecked use of these medications also translates to substantial economic losses.

Recently, initiatives like 'Choosing Wisely' advocate for more evidence-based medical practices. This includes regular re-evaluation of the need for such drugs, defining clear treatment endpoints, and considering less potent alternatives like H2 blockers when appropriate. These blockers have been shown to be safe and might see a resurgence in their use, promoting a more balanced approach to stomach acid reduction.

For patients prescribed PPIs twice daily, it might be beneficial to cut down to once daily first. However, PPIs reduction or withdrawal aren't suitable for those with severe gastroesophageal esophagitis, Barrett's oesophagus, eosinophilic oesophagitis, or idiopathic pulmonary fibrosis. Stopping PPIs can be challenging, especially in situations where there's a heightened risk of gastrointestinal bleeding. Before ending PPI use, one should evaluate it and those at significant risk shouldn't halt their PPI intake. Moreover, patients using PPIs for functional dyspepsia often face symptom recurrence upon discontinuation. They should be aware of this likelihood. Some symptoms might be temporary due to rebound effects, but too H2 blockers can offer relief for some patients.

It's crucial for doctors and patients to work closely when adjusting PPI dosages, stopping them, or switching to H2 blockers. Informing patients about alternatives like H2 blockers could lead to more effective treatment outcomes.

SPEAKER

Jaroslaw **Regula**

Department of Gastroenterology, Centre of Postgraduate Medical Education and Maria Sklodowska-Curie Research Institute of Oncology, Warsaw, Poland

Prof. Jaroslaw Regula, M.D., Ph.D., graduated from the Medical University of Warsaw, Poland, in 1981. He obtained his specialist diploma in gastroenterology in 1992. Between 1992 and 1993, he was a Research Fellow at University College London, United Kingdom. He is currently a Full Professor of medicine and the Head of the Department of Gastroenterology at the Medical Centre for Postgraduate Education, Maria Skłodowska-Curie Memorial Cancer Centre and Institute of Oncology, Warsaw.
Professor Regula focuses his clinical research activities on colorectal cancer screening, endoscopic early diagnosis of digestive cancers, clinical and endoscopic aspects of Barrett's esophagus, and diseases of the upper gastrointestinal tract. He has authored or coauthored more than 150 articles and book chapters, including three research articles on colonoscopy and colorectal cancer screening published in the prestigious New England Journal of Medicine.
At present, he holds the post of the Vice President of the Polish Society of Gastroenterology. Formerly, he acted as the President of the European Association for Gastroenterology, Endoscopy and Nutrition. Currently, he is a Board Member of the European Society of Digestive Oncology, as well as a member of the Meeting of Members of the United European Gastroenterology (UEG) and of the UEG Research Committee. Professor Regula also serves as the National Consultant in gastroenterology in Poland.

DIFFERENT COUNTRIES – DIFFERENT APPROACHES IN A TREATMENT OF REFLUX DISEASE

One would expect that the therapy of reflux disease is very similar in different countries. In order to verify this hypothesis, the review of selected guidelines on reflux disease were searched. Especially, differences in approach to therapy were identified.

Since 2010 there was as many 24 clinical practice guidelines published worldwide dealing with definitions, epidemiology, diagnosis, treatment and complications of GERD. The following most recent guidelines were reviewed in detail: American Gastroenterology Association (2022), American College of Gastroenterology (2022), Japanese Society of Gastroenterology (2021), African and Middle Eastern Gastroenterologists (2022), Korean Seoul Consensus (2021), Polish Society of Gastroenterology (2022) and Romanian Societies of Gastroenterology and Neurogastroenterology (2022).

It has to be stated that the main recommendations concerning the usage of proton pump inhibitors (PPI) as primary therapy were nearly identical in identified recommendations. Also, there is an overall agreement concerning the following issues: a) discontinuation of treatment after resolution of symptoms, tapering to the lowest effective dose including intermittent PPI therapy, b) long-term PPI therapy in patients Los Angeles grade C or D, c) role of endoscopy when alarm symptoms are present such as dysphagia, weight loss, bleeding, vomiting, anaemia, chest pain and refractory symptoms as well as in Barretts oesophagus, d) role of surgery in patients with objective evidence of GERD and severe oesophagitis, large hiatal hernia, persistent symptoms including regurgitation, e) possibility of overlapping symptoms with hypersensitive oesophagus, eosinophilic oesophagitis, functional heartburn.

There are, however, differences in detailed issues including the role of histamine 2 receptor antagonists in nocturnal symptoms, use of neuromodulators and behavioural therapy in patients with functional heartburn or hypersensitive oesophagus, role of surgical therapy using Roux-en-Y gastric bypass in selected patients and also the role of different endoscopic therapies in the treatment of GERD. It is worth mentioning that several guidelines (including Polish Society of Gastroenterology guidelines) indicate the role of prokinetic drug – itopride as adjunct therapy to PPI to increase the effectiveness and satisfaction of patients. There are also significant differences (or absence in recommendations) in special clinical situations including pregnancy, severe cardiopulmonary diseases, reflux testing in asymptomatic patients (before bariatric surgery or before lung transplant). Obviously there are also differences changing over time in the approach to PPI long-term adverse effects. Interestingly, Japanese guidelines position usage of vonoprazan, a potassium-competitive acid blockade (P-CABs) not only for difficult cases but also as initial and maintenance GERD therapy. Another view comes from African Middle Eastern recommendations where GERD appears to be quite prevalent and special situations also exist e.g. during fasting in the period of Ramadan. In conclusion, despite quite uniform world guidelines concerning main issues of GERD therapy, there are also multiple usually minor differences between several guidelines.

SPEAKER

Martin **Bortlík**

**Gastroenterology department in Hospital České Budějovice;
First Faculty of Medicine, Charles University, Prague, Czech Republic**

Doc. Martin Bortlík, M.D., Ph.D., graduated from the First Medical Faculty of Charles University in Prague, Czech Republic, in 1994. He received his first-degree specialist diploma in internal medicine in 1997 and his second-degree specialist diploma in gastroenterology in 2000. He defended his doctoral dissertation in 2009 and was habilitated in 2019. He gained international experience at the Digestive Disease and Surgery Institute, Cleveland Clinic, Ohio, USA; at the Texas Medical Center in Houston, Texas, USA; and at the European Postgraduate Gastro-surgical School at the Academic Medical Center, Amsterdam, the Netherlands.
Between 2007 and 2020, docent Bortlík worked at the ISCARE Clinical Center in Prague as a specialist physician and Deputy Head. At present, he is employed at the Department of Gastroenterology of the České Budějovice Hospital, where he serves as the Head of the department. He also works part-time at the Internal Clinic of the First Medical Faculty of Charles University and Military University Hospital Prague, as well as at the Institute of Pharmacology of the same hospital. Docent Bortlík's main research interests include inflammatory bowel disease and digestive endoscopy. He has published about 110 peer-reviewed papers, 58 impacted papers, and 10 monograph chapters. He serves as the Head of the Czech IBD Working Group and a Board Member of the Czech Society of Gastroenterology. Additionally, he is a member of several professional associations, including the European Crohn's and Colitis Organisation, the European Society of Gastrointestinal Endoscopy, and the American Society for Gastrointestinal Endoscopy. Docent Bortlík acts as a reviewer for international journals such as the World Journal of Gastroenterology, Journal of Crohn's and Colitis, *and* Expert Review of Gastroenterology & Hepatology.

PROTON PUMP INHIBITOR'S ADVERSE EFFECTS – FACTS OR FICTION?

Proton pump inhibitors (PPI) belong to the most prescribed drugs worldwide. A recent review has shown that in "western" countries, almost one quarter of adult population use PPIs, mostly long-term and in high doses. Moreover, in substantial part of long-term PPI users, the indication for such therapy in no longer present or remains unclear. While being considered a safe medication, emerging evidence exists indicating potential or possible harm, especially for long-term use of PPI. From pathophysiological point of view, several mechanisms may account for adverse events of PPIs, including lack of antimicrobial barrier in the gut and respiratory system, impaired vitamin and minerals metabolism, impaired kidney function and cardiovascular homeostasis, and trophic and possibly procarcinogenic effect of PPIs within the gastric mucosa. Several studies and their reviews aimed to look at the data on relationship between the use of PPIs and adverse events and support the association rather than causation with increased adverse outcomes related to gastrointestinal tract infections, bone metabolism and its complications (namely fractures), and kidney diseases. Data on relationship with cardiovascular events are mixed, while significant association was found for all-cause mortality. Currently available data led FDA to issue a safety warnings regarding the risk of *C. difficile* infection and the risk of fractures associated with PPI use. Therefore, the association between (mainly) the long-term use of PPI and some adverse outcomes seems to be fact rather than fiction. It should lead us to appropriate and regular evaluation of indication for PPI use and deescalation or drug withdrawal in patients treated inappropriately.

SPEAKER

Lukáš Bajer

**Hepatogastroenterology department,
Institute for Clinical and Experimental Medicine, Prague, Czech Republic**

Lukáš Bajer, M.D., Ph.D., graduated from the First Faculty of Medicine of Charles University in Prague, Czech Republic, in 2012. He received his doctoral degree in 2020 from the same faculty, where he subsequently obtained the position of Assistant Professor. He gained international experience at Sultan Qaboos University Hospital in Muscat, Oman; Dr Omry Koren's Microbiome Research Lab at the Azrieli Faculty of Medicine of Bar-Ilan University in Safed, Israel; and most recently, Oslo University Hospital, Rikshospitalet, in Oslo, Norway. Since 2012, doctor Bajer has been working at the Hepatogastroenterology Department of the Institute for Clinical and Experimental Medicine (IKEM) in Prague. In addition, since 2015, he has been affiliated with the Institute of Microbiology of the Czech Academy of Sciences.

Doctor Bajer focuses his research on inflammatory bowel disease, cholestatic liver disease, and gastrointestinal microbiota. He is the author or coauthor of a number of impacted or peer-reviewed articles and regularly presents his at prestigious international conferences, including the Digestive Disease Week, the United European Gastroenterology Week, Congress of the European Crohn's and Colitis Organisation, and others. Doctor Bajer is a member of the International PSC Study Group, the European Crohn's and Colitis Organisation, the European Society of Gastrointestinal Endoscopy, the Czech Society of Gastroenterology, and the Czech Society of Hepatology.

ANTI-SECRETORY THERAPY AND MICROBIOME

The human microbiota comprises around 10^{14} microscopic organisms which are present on all internal and external surfaces of the human body. However, the most of these organisms by far reside in the colon and are referred to as "gut microbiota". Bacteria represent the most numerous component of the human microbiota and presumably play the most prominent role in homeostasis. However, minor components of microbiota (such as fungi, viruses and Archaea) interact with both human and bacterial cells and may have a key role not only in human physiology but also in pathogenesis of various diseases. The term "microbiome" refers to the aggregate genetic information of all the microorganisms present in the respective niche.

Both the composition and function of the gut microbiota is largely influenced by the environmental factors. While the diet is considered to be the most significant external factor, the role of other xenobiotics has recently been largely recognised with widely used medicaments being the most prominent. Proton pump inhibitors (PPIs) represent a cornerstone of anti-secretory therapy and belong to the group of the most prescribed medicaments worldwide. The most common PPI is omeprazole, followed by pantoprazole and other similar molecules like esomeprazole, lansoprazole and rabeprazole. PPIs are intended to treat gastroesophageal reflux disease (GERD), Zollinger-Ellison syndrome and gastroduodenal ulcers. They can also be used in treatment of eosinophilic esophagitis as an alternative to budesonide. All other indications have to be considered as off-label and the unjustified over-use of PPIs emerges as a substantial medical and socio-economical problem.

Long-term use of PPIs is significantly associated with the compositional and functional shifts of the gut microbiota. The major cause for PPI-associated dysbiosis is gastric hypochlorhydria, nevertheless, the host-microbiota-drug interactions are far more complex involving various immune, neuroendocrine and metabolic pathways. Dysbiosis has recently been associated with numerous diseases, even those reaching beyond the field of gastroenterology. However, most data are available on the diseases involving colon itself. This includes inflammatory bowel diseases (IBD), irritable bowel syndrome (IBS), microscopic colitis (MC), colorectal cancer (CRC) and many others. Furthermore, the dysbiosis probably plays an important role in the pathogenesis of various liver diseases like liver cirrhosis, alcoholic liver disease (ALD), non-alcoholic fatty-liver disease (NAFLD) or primary sclerosing cholangitis (PSC).

The presented review will address the role of PPI in dysbiosis and it's relation to pathogenesis and disease course of various liver and gastrointestinal pathologies.

CHAIRMAN & SPEAKER

Maura **Corsetti**

NIHR Nottingham BRC, Nottingham University Hospitals NHS Trust and the University of Nottingham, Nottingham, UK.
Nottingham Digestive Diseases Centre, Translational Medical Sciences, School of Medicine, University of Nottingham, Nottingham, UK.

Maura Corsetti, M.D., Ph.D., received her medical degree from the Faculty of Medicine of the University of Milan, Italy, in 1996. She specialized in gastroenterology, obtaining her specialist diploma from the University of Milan in 2000 and passing her European Specialty Examination in Gastroenterology and Hepatology in 2001. She was awarded her doctoral degree from the University of Milan in 2004. From 2004 to 2012, doctor Corsetti served as a Consultant and Head of the Gastrointestinal Motility Unit of the Vita-Salute San Raffaele University in Milan. From 2012 to 2016, she worked as a Senior Research Supervisor at the Translational Research Center for Gastrointestinal Disorders (TARGID) at KU Leuven, Belgium. Since 2016, she has held the position of Clinical Associate Professor at the Nottingham Digestive Diseases Centre at the University of Nottingham, United Kingdom.

Doctor Corsetti focuses her research on functional gastrointestinal disorders, particularly gastrointestinal motility. She was responsible for the development of colonic high-resolution manometry, becoming one of two world experts in this technique. She is involved with numerous professional associations in different capacities, including a Secretary of the Neurogastroenterology and Motility Committee of the British Society of Gastroenterology, a member of the Scientific Committee of the United European Gastroenterology, and a Co-Chair of the Rome V Committee on Functional Bowel Disorders. She currently acts as the Editor-in-Chief of the Neurogastroenterology & Motility *and is on the Editorial Board of the* American Journal of Physiology – Gastrointestinal and Liver Physiology *and the* Lancet Gastroenterology & Hepatology. *Doctor Corsetti is also a member of the Food and Function Committee of the British Society of Gastroenterology.*

FUTURE DIRECTIONS (PROKINETICS, H2RA, PCABS)

The introduction of acidity inhibition into clinical practice has greatly improved the management of acid-related diseases. H2 receptor antagonists (H2RAs) have long been the only drugs for acidity suppression. In the 1990s, proton pump inhibitors (PPIs) appeared on the market, demonstrating their superiority in curing esophagitis and becoming the drugs of choice for treating reflux disease. However, as these drugs still leave some clinical needs unmet and persistent symptoms are observed in up to 40–55% of daily PPI users, new drugs have been developed in recent years. Potassium-competitive acid blockers (P-CABs) appear to overcome many of the drawbacks and limitations of PPIs by producing rapid, potent and prolonged acid suppression. Growing evidence suggests that they play an important role in the relief of symptoms that do not respond to PPI therapy. While U.S. guidelines do not consider prokinetics useful in the treatment of reflux, the Japanese recognize their role in the management of patients who do not respond to other treatments, including PPIs and additional medical options. This lecture will present evidence on the role of P-CABs, H2Ras and prokinetics in the treatment of reflux.

CHAIRMAN

Agata **Mulak**

Dept. of Gastroenterology and Hepatology, Wroclaw Medical University, Wroclaw, Poland

Prof. dr hab. Agata Mulak, M.D., Ph.D., completed her medical degree at Wrocław Medical University in Wrocław, Poland, in 1999. She received her doctoral degree in 2005 and obtained her specialist diploma in internal medicine in 2007, both from the same university. She was the recipient of several international scholarships, including a postdoctoral fellowship at the G. Oppenheimer Center for Neurobiology of Stress and Resilience, Division of Digestive Diseases, University of California, Los Angeles, USA, from 2009 to 2011. She currently holds the post of Associate Professor at the Department of Gastroenterology and Hepatology of Wrocław Medical University. Professor Mulak's research focuses on basic and clinical aspects of the brain–gut–microbiota axis, the role of gut dysbiosis in neurodegenerative disorders, he pathophysiology of irritable bowel syndrome and functional dyspepsia, sex differences in visceral hypersensitivity, and stress-related disorders. From 2017 to 2021, she served as a member of the Steering Committee of the European Society of Neurogastroenterology and Motility. On the national level, she was formerly the President of the Polish Neurogastroenterology and Motility Group. Since 2016, she has been involved in the Rome Foundation Global Epidemiology Study in the capacity of Principal Investigator in Poland. She is currently a member of the Rome V Committee on Social and Cultural Factors of Disorders of Gut–Brain Interaction. In 2023, Professor Mulak has been distinguished with a Rome Foundation Fellowship.

CHAIRMAN

Peter Bánovčin

Dept. of Gastroenterology, University Hospital Martin, Martin, Slovakia

Doc. Peter Bánovčin, M.D., Ph.D., MBA, obtained his medical degree from the Jessenius Faculty of Medicine in Martin, Comenius University, Slovakia, in 2006. He completed his doctoral degree in internal medicine at the same university in 2011. Following successive fellowships in management and finance in healthcare, internal diseases, and gastroenterology, he received his habilitation in internal medicine at the Jessenius Faculty of Medicine in Martin in 2021. He participated in academic mobilities, including an esophageal motility observership at the Johns Hopkins University School of Medicine in Baltimore, USA, in 2015; a mucosal integrity observership at KU Leuven, Belgium, in 2015; and a fellowship granted by the European Society of Gastrointestinal Endoscopy at the Johannes Gutenberg University in Mainz, Germany, in 2019.

Docent Bánovčin became an Associate Professor of internal medicine at the Jessenius Faculty of Medicine in Martin in 2021 and has served as the Head of the Clinic of Gastroenterological Internal Medicine at the same institution since 2022. He is a member of the Academic Senate of the Jessenius Faculty of Medicine. He was elected the Second Vice President of the Slovak Society of Gastroenterology in 2022. Additionally, docent Bánovčin is the Chair of the Neurogastromotility and Gastroesophageal Reflux Disease Section of the Slovak Society of Gastroenterology. His professional memberships include the Slovak Society of Hepatology, the European Society of Gastrointestinal Endoscopy, and the European Society of Neurogastroenterology and Motility.

CHAIRMAN & SPEAKER

Jan Tack

Translational Research Center for Gastrointestinal Disorders (TARGID), Department of Chronic Diseases and Metabolism, University of Leuven; Head, Division of Gastroenterology and Hepatology, Leuven University Hospitals, Leuven, Belgium; President of the Rome Foundation for Disorders of Gut Brain Interactions (DGBIs)

Prof. Jan Tack, M.D., Ph.D., graduated from KU Leuven, Belgium, in 1987. He specialized in internal medicine and gastroenterology. He has conducted research at KU Leuven since 1990 and was appointed Full Professor of internal medicine at the same institution. He is the founder of the Translational Research Center for Gastrointestinal Disorders (TARGID) at KU Leuven. Formerly, he held the post of the Head of the Department of Clinical and Experimental Medicine at KU Leuven. At present, he serves as the Head of the Department of Gastroenterology and Hepatology, University Hospitals Leuven, Belgium.
Professor Tack focuses his research on neurogastroenterology and motility, including the pathophysiology and management of gastroesophageal reflux disease, functional dyspepsia, gastroparesis, chronic constipation, and irritable bowel syndrome. He has published in all leading gastroenterology journals, having authored or coauthored more than 900 articles and 45 book chapters. He was the founding Editor-in-Chief of the United European Gastroenterology Journal *and serves or has served as a member of the Editorial Board of the* American Journal of Gastroenterology, Gastroenterology, Alimentary Pharmacology & Therapeutics, and others.
He is the current President of the Rome Foundation, as well as a Council Member and the President Elect of the European Association for Gastroenterology, Endoscopy and Nutrition. Formerly, he acted as the President of the European Society of Esophagology, as the President of the International Society for Diseases of the Esophagus, and as a member of the Steering Committee of the European Society of Neurogastroenterology and Motility. Professor Tack has been recognized with numerous awards, including the Research Award of the International Foundation for Gastrointestinal Disorders in 2013, the Research Prize of the United European Gastroenterology in 2015, and the Herbert Falk Award by the Falk Foundation in 2023.

EAST-EUROPEAN CONSENSUS ON MANAGEMENT OF FD

Introduction

A recent European consensus recommended upper gastrointestinal endoscopy with *H. pylori* (HP) testing in the work-up of functional dyspepsia (FD) and considered only HP-eradication and proton pump inhibitor (PPI) therapy as validated treatment options (Wauters UEGJ, 2021). Our aim was to evaluate differences and approaches chosen in FD management in East-Europe, which is characterized by a higher prevalence of HP infection and different availability of FD treatments.

Methods

Twenty-four experts from ten East-European countries voted on 95 statements concerning definition, epidemiology, diagnosis and treatment of FD. Experts voted for agree strongly(A+), with minor(A) or major(A-) reservation or disagree strongly(D+), with major(D) or minor(D-) reservation. Consensus was defined as total agreement of at least 80%.

Results

All experts agreed to the definition and subtypes of FD, defined by the Rome IV criteria. The frequent presence of overlapping reflux symptoms (83% consensus) or irritable bowel syndrome (88%) was also accepted. There was consensus upon gastrointestinal infection and anxiety as risk factors for developing FD but not for smoking, antibiotic use or NSAIDs.

To establish a diagnosis of FD, HP testing (92%) and an upper endoscopy (83%) is considered mandatory, even in the absence of alarm symptoms. Other tests such as abdominal ultrasound, gastric emptying test and esophageal pH-impedance monitoring were not considered useful. Subtyping FD into the postprandial distress syndrome (PDS) and epigastric pain syndrome (EPS) subgroups was supported for optimizing diagnostic and therapeutic approach (83%).

92% of experts agreed that HP should be eradicated if present. No consensus was reached for PPI as the most appropriate initial (71%) or effective therapy (67%). Similarly, there was no consensus on the therapeutic efficacy of diet (67%), H2 blockers (50%), D2-receptor antagonists (46% for PDS), or prokinetics as a group (46%), but there was a tendency to support itopride as effective (75%) in FD. There was no support for trimebutine (29%), prucalopride (38%), herbal agents (38%), rifaximin (33%), probiotics (25%), neuromodulators (17–58%) or for behavioral treatments such as hypnotherapy (29%); cognitive behavioral therapy (50%), acupuncture (8%) and mindfulness (25%).

Conclusion

In contrast to the recently published European consensus, the East-European consensus on FD insists on early diagnostic endoscopy, regardless of alarm features. There is a lack of consensus regarding treatment modalities for this highly prevalent condition, but there was a tendency to support PPI therapy as first-line treatment and itopride as effective therapy.

SPEAKER

Dorota
Waśko-Czopnik

Wrocław Medical University; Head of the Gastrointestinal Motility Laboratory, Poland

Dr hab. Dorota Waśko-Czopnik, M.D., Ph.D., received her medical degree from the Wrocław Medical University in Wrocław, Poland, in 1997. She specialized in internal medicine and in gastroenterology, obtaining her specialist diplomas in 2005 and in 2014, respectively. In 2003, she successfully defended her doctoral dissertation, and she was habilitated in 2014. Additionally, she pursued postgraduate studies at the Faculty of Biotechnology and Food Science, Wrocław University of Environmental and Life Sciences, graduating as a nutrition consultant in 2007.

Since 1997, doctor Waśko-Czopnik has been working as an Assistant Professor at the Wrocław Medical University, where she is currently affiliated with the Department of Gastroenterology and Hepatology. In 2007, she became the Head of the Gastrointestinal Motility Laboratory. She is a Board Member of the Neurogastroenterology and Motility Section of the Polish Society of Gastroenterology, a Board Member of the Microscopic Enteritis Section of the Polish Society of Gastroenterology, as well as a Board Member of the European Society of Neurogastroenterology and Motility and a Board Member of the European Crohn's and Colitis Organisation.

Her research interests include functional disorders of the gastrointestinal tract, especially esophageal motility disorders and gastroesophageal reflux disease. She has authored or coauthored over 160 articles, chapters, and monographs. Doctor Waśko-Czopnik has been distinguished with numerous awards, including the Top Abstract Prize awarded at the United European Gastroenterology Week in 2002, the Scientific Award of the Polish Dental Society in 2009, and a First-Degree Individual Award of the Rector of the Wrocław Medical University in 2011.

SPECIALISTIC DIAGNOSTICS OF MOTILITY DISORDERS OF UPPER GIT – WHERE ARE WE?

Functional disorders of the gastrointestinal tract, especially the upper GI, still pose many diagnostic difficulties. High-resolution esophageal manometry (HRM) studies of the absence of changes in endoscopic and imaging studies provide clinically relevant measures of function that explain the cause of symptoms, identify pathology and guide effective management. Advances in technology, methodology, interpretation and reporting represent the greatest advance in the past 15 years. HRM is the cornerstone of the study of esophageal dysfunction. Advances in technology (the increasing number of pressure sensors and the integration of impedance sensors with catheters) have provided important new insights into the pathological mechanisms of esophageal diseases. It enables dynamic assessment of the function and movement of the bolus during swallowing in the pharyngeal phase, visualizes the functional activity of the esophagus, enables objective measurement of factors impairing the transport of the bolus, distinguishes between the components of the LES (Lower Esophageal Sphincter) and the diaphragm forming the anti-reflux barrier, and allows track changes in their functioning in time, precise segmental diagnosis of the body, hiatal hernia or functional disorders of the esophagus. Advances in HRM have led to a deeper understanding of the normal function of the esophagus, the discovery of new disease processes (achalasia subtyping). The new method required standardization for fear of overinterpretation, which is why a classification of esophageal motility disorders was created – the Chicago Classification, now v. 4.0.

Like every method, it has its limitations and so, for example, at least 20% of patients with swallowing disorders have normal HRM results and vice versa. The position of the examination is debatable – the supine position excludes gravity as a factor supporting swallowing, but on a daily basis we rarely drink and eat in the supine position. On the other hand, the upright (sitting) position is easier to perform the examination and preferred by patients, but symptoms are much more likely to be swallowed with solids than with liquids, and thus using protocols that evaluate only single water swallows may miss clinically significant, symptomatic pathology that may only be apparent after ingestion of a solid bolus. Studies conducted to validate the HRM used a 5 ml water swallow, which became the basis for the Chicago classification. Swallowing small amounts of water is not normal behavior, so it very rarely reproduces symptoms and may not show clinically significant dysphagia. Therefore, it became necessary to introduce standardized challenge tests to highlight abnormal motor skills and reproduce symptoms, such as the multi rapid swallow test (MRST), RDC (Rapid Drink Challenge), ingestion of a viscous bolus (apple sauce, yogurt), swallowing of solid food (bread, marshmallow, biscuits) or a standardized test meal. The introduction of ancillary tests is perhaps the most important development since the inception of HRM and was incorporated into the Chicago Classification in version 4.0. In clinical practice, they remain a growing area of interest and research, standardizing results and preventing overdiagnosis of clinically insignificant motor disorders.

SPEAKER

Jiří **Dolina**
Štefan **Konečný**

**Internal clinic of Gastronenterology,
University Hospital Brno, CZ**

Doc. Jiří Dolina, M.D., Ph.D., graduated in general medicine from the Faculty of Medicine of Masaryk University in Brno, Czech Republic, in 1992. He obtained his first-degree and second-degree specialist diplomas in internal medicine in 1995 and 2004, respectively. He received his doctoral degree from Masaryk University in 2003.
Docent Dolina is currently the Head of the Clinic of Gastroenterology and Internal Medicine at the University Hospital Brno, Czech Republic. From 2008 to 2017, he served as the Head of the Functional Diagnostics Laboratory and as the Deputy Head of Education at the same clinic. From 2008 to 2010, he was the Head of Department A, and from 1995 to 1999, the Head of the Intermediate Care Department, both at the same hospital. Docent Dolina holds the post of Assistant Professor and is a member of the Academic Senate of the Faculty of Medicine at Masaryk University.

AND WHAT ABOUT DGR

Bile is a unique body fluid produced by the liver, by normal conditions is stored and concentrated in the gallbladder and then released. Also in physiological conditions is mild retrograde bile flow for duodenum into the stomach observed – duodenogastric reflux (DGR). Although miled bile reflux may not cause any gastric injury, but excessive DGR may cause for example alkaline gastritis or secondary can be involved in duodeno-gastro-esophageal reflux and may cause significant esophageal mucosal injury. We recognize the primary DGR – duode to antroduodenal dysmotility and secondary DGE – the consequence of surgery (pyloroplasty, gastric resection or cholecystectomy). Patients with DGR my present heterogenous symptomatology – mostly non-specific "dyspepsia", nausea, vomiting with "taste" of bile, etc. As diagnostic tools for DGR can be used endoscopy with biopsy and proven biliary gastritis type, but more objective diagnosis can be made by DISIDA scan, HIDA or Bilitec monitoring. All of them has limitations in interpretation, scintigraphy does not accurately quantify volume, concentration on the composition of the refluxate. DGER can be possibly monitored by 24-hour multichannel impedance and pH but also this method has several limitations. In treatment of DGR are lifestyle adjustments and conservative approach used and sometimes effective. From group of medications are ursodeoxycholic acid, sucralfate or proton pump inhibitors very often prescribed. If the conservative treatment failed to reduce severe symptoms or there are precancerous changes in stomach or esophagus, some types of diversion surgery or anti-reflux surgery are discussed and offered.

SPEAKER

Anita Gąsiorowska

Head of the Gastroenterology Clinic, Central Clinical Hospital, Medical University of Łodz, Poland

Prof. dr hab. Anita Gąsiorowska, M.D., Ph.D., obtained her medical degree from the Faculty of Medicine of the Medical University of Łódź, Poland, in 1991. She received her first-degree and second-degree specialist diplomas in internal medicine in 1995 and 2000, respectively. She submitted her dissertation on hepatic changes in patients with chronic alcoholic pancreatitis in 1999 and was subsequently awarded a doctoral degree. From 2007 to 2008, she was a research fellow in the Neuro-Enteric Clinical Research Group in the Section of Gastroenterology, University of Arizona, Tucson, USA. She holds the post of Associate Professor and currently serves as the Head of the Department of Gastroenterology at the Central Clinical Hospital of the Medical University in Łódź.

Professor Gąsiorowska's research interests include pancreatitis, pancreatic cancer, and gastroesophageal reflux disease. She has authored or coauthored more than 130 articles, over 100 abstracts, and 25 book chapters. She frequently lectures and presents at international internal medicine and gastroenterology conferences. Professor Gąsiorowska acts as the Editor-in-Chief of the national journal Gastroenterologia praktyczna *(Practical Gastroenterology) and is a member of the Editorial Board of the international* Journal of Neurogastroenterology and Motility. *She is the Vice President of the Łódź branch of the Polish Society of Gastroenterology, a Board Member of the Neurogastroenterology and Motility Section of the Polish Society of Gastroenterology, and a member of the Polish Pancreatic Club.*

WHEN GERD OVERLAPS WITH DYSPEPSIA

Gastroesophageal reflux disease (GERD) is diagnosed based on symptoms or the presence of changes in the esophageal mucosa, which develops when the reflux of stomach contents causes troublesome symptoms and/or complications. The pathogenesis of GERD is complex and involves inappropriate lower esophageal sphincter (LES) relaxation, impaired reflux clearance, disruption the integrity of the esophageal mucosa, visceral sensitivity and delayed gastric emptying.

The clinical presentation of this disease is highly diverse. According to the Montreal consensus, it encompasses both esophageal and extraesophageal symptoms. Typical symptoms of GERD include heartburn and regurgitation. However GERD can also manifest as non-cardiac chest pain and symptoms affecting the throat, larynx, and respiratory system. Other phenotypic forms of GERD, requiring diagnosis through endoscopy, include conditions associated with esophageal damage, such as reflux esophagitis, strictures, Barrett's esophagus and adenocarcinoma. The pharmacological treatment of GERD primarily relies on the use of proton pump inhibitors (PPIs), which alleviate clinical symptoms and heal esophageal inflammation.

Currently, it is believed that the overlap of functional dyspepsia (FD) symptoms such as epigastric burning and/or postprandial fullness significantly impacts the treatment outcomes for patients with GERD.

The underlying pathogenetic mechanisms of the overlap between functional dyspepsia and GERD are complex and not fully understood. Several pathogenetic factors are commonly mentioned: visceral hypersensitivity, duodenal eosinophilia, impaired gastric accommodation with TLESRs, increased duodenal acid exposure and sensitivity to acid, psychological factors, alteration in the composition of gut microbiota and altered gut-grain axis. It's important to note that these factors likely interact in complex ways and their specific roles in the overlap of functional dyspepsia and GERD can vary between individuals. The coexistence of these diagnoses more commonly affects women and younger patients. Furthermore, the overlapping symptoms of these two conditions have a negative impact on the deterioration of health-related quality of life. Symptoms related to both GERD and functional dyspepsia have a chronic and recurrent nature, leading to significant healthcare costs. They often require an individualized approach, encompassing lifestyle modifications as well as the choice of pharmacotherapy methods. Therapeutic management should take into account the variability of predominant symptoms and also consider the potential side effects that may arise during treatment. In the therapy of patients with overlapping GERD and FD, in addition to anti-secretory agents, neuromodulators, dual histamine H1/H2 receptor blockers, and fundic relaxants can also be beneficial. For patients with GERD and dyspeptic symptoms, prokinetic drugs can be considered. These medications enhance gastric emptying and reduce the frequency of post-prandial lower esophageal sphincter relaxations.

In medical practice, we are increasingly encountering patients with overlapping conditions, including GERD and dyspepsia. Therefore, to make informed treatment decisions, it is crucial to gather a thorough history of symptoms and their relationship to meals, consider the impact of psychological factors, and then recommend personalized lifestyle modifications and tailored pharmacotherapy.

SPEAKER

Adam **Przybyłkowski**

Department of Gastroenterology and Internal Diseases Medical University of Warsaw

Dr hab. Adam Marcin Przybyłkowski, M.D., graduated from the Second Faculty of Medicine of the Medical University of Warsaw in Warsaw, Poland, in 2006. He received his specialist diploma in clinical pharmacology, gastroenterology, clinical transplantology and internal diseases. He went on to be habilitated at the Medical University of Warsaw in 2014. At the same university, he obtained the position of Assistant Professor, teaching at the Department of Experimental and Clinical Pharmacology and at the Department of Gastroenterology and Internal Medicine. Doctor Przybyłkowski currently serves as the Head of the Department of Gastroenterology and Internal Medicine of the Medical University of Warsaw. In addition, he is a member of the Pharmacovigilance Risk Assessment Committee of the European Medicines Agency. Formerly, he was a member of the Committee on Physiological and Pharmacological Sciences and also a member of the Committee on Therapy and Drug Research, both at the Polish Academy of Sciences. He was also a Secretary of the Polish Pharmacological Society. Doctor Przybyłkowski's research interests include internal diseases, gastroenterology, clinical pharmacology, and clinical transplantology.

HYPERSENSITIVE ESOPHAGUS

The definition of hypersensitive esophagus called also esophageal hypersensitivity has evolved trough Rome II and Rome III finally to reflux hypersensitivity according to Rome IV. It is functional esophageal disorder, defined by presence of heartburn symptoms despite normal acid exposure, normal upper endoscopy and histopathological examination with evidence of triggering of symptoms by reflux events. The disease is very common, it is estimated that reflux hypersensitivity accounts for 14% of all patients presenting with heartburn. Reflux hypersensitivity overlaps commonly with other functional gastrointestinal disorders as irritable bowel syndrome and functional dyspepsia. The esophageal hypersensitivity is considered a common mechanism for the development of various esophageal disorders including reflux hypersensitivity. This presentation summarizes the current knowledge regarding hypersensitive esophagus.

SPEAKER

Lars Aabakken

Oslo University Hospital Rikshospitalet, Norway

Prof. Lars Aabakken, M.D., Ph.D., graduated from the Faculty of Medicine of the University of Oslo, Norway, in 1986. He received his specialist diploma in gastroenterology in 1990 and his doctoral degree in 1991, both from the same university. He started working as an attending gastroenterologist at Oslo University Hospital, Rikshospitalet, in 1996. At the same hospital, he has served as the Head of Gastrointestinal Endoscopy since 2002. Since 2008, he has held the position of Full Professor of medicine at the University of Oslo. Professor Aabakken served as the President of the Scandinavian Association for Digestive Endoscopy between 2005 and 2013 and as the President of the European Society of Gastrointestinal Endoscopy between 2014 and 2016. He is also a former Council Member of the United European Gastroenterology and a former Secretary General of the World Endoscopy Organization (WEO). At present, he acts as the President Elect of the WEO and as a Regional Chair of the WEO Outreach Committee, serving the African region. Additionally, he is a member of the Expert Panel on In Vitro Diagnostic Medical Devices of the European Commission.
His professional interests include gastrointestinal endoscopy, documentation systems, and clinical research. He has written more than 250 articles published in peer-reviewed journals, as well as a number of books and book chapters. Following fourteen years on the Editorial Board, Professor Aabakken now acts as the Editor-in-Chief of the Scandinavian Journal of Gastroenterology.

PSC AND OTHER PRECANCEROUS CONDITIONS – ARE THEY REALLY OUT OF REACH?

Periductal and intraductal malignancies pose significant difficulties. To patients who suffer them, surely, but definitely also for doctors tasked with detecting them in time, handling them appropriately and struggle to improve the care for this difficult patient group.
One obvious strategy is to identify precancerous conditions and surveill those, even treat them pre-emptively. In this group, primary sclerosing cholangitis (PSC) is the most obvious example, but others must be recognized, most notably, choledochal cysts, gall bladder polyps and fluke infection in the biliary tree, along with other conditions more to be seen as risk factors.
Despite different starting points, all these cancers develop through one of three intermediate variants:

- Bil-In – biliary intraepithelial neoplasia – flat growth, non-tumor-forming, invisible
- Intraductal papillary neoplasms IPNB (en par w IPMN in pancreatic duct)
- Mucinous cystic neoplasms (MCN)

PSC is assumed to develop to malignancy through inflammation, then dysplasia, although a lot is unknown, and a lot of molecular factors are involved. The risk of CCA increases 400–1500 fold in PSC patients with a life time risk of up to 20%. Half of the patients will present with their cancer during the first year of disease. Distinction between benign dominant strictures and CCA is the main challenge. Most recommend regular MRCP surveillance in these patients, then ERCP for sampling at increase suspicion. Spyglass cholangioscopy for visual assessment and directed biopsies are a promising adjunct, ideally to decide the perfect time for liver transplantation.
Choledochal cysts carry a significant risk of malignant transformation, and removal – by resection or sometimes liver transplantation, is recommended at diagnosis. However metachronous lesions occur, and post surgery follow-up is recommended.
Gallbladder polyps carry a certain malignant potential, correlated to size, and more so in the context of PSC. Clear guidelines exist for the handling in terms of indication for cholecystectomy.
Finally, liver flukes – when diagnosed, should be treated, but still carry a residual risk of malignancy and also a recommended for surveillance.
In conclusion, the route to CCA prevention is through identification and proper surveillance of risk groups, before and (mostly) after surgery.

CHAIRMAN & SPEAKER

Ondřej **Urban**

2nd Department of Internal Medicine and Geriatrics,
Faculty Hospital and Faculty of Medicine and Dentistry,
Palacky University Olomouc, Olomouc, Czech Republic
Supported by MH CZ – DRO (FNOl, 00098892)

Doc. Ondřej Urban M.D., Ph.D., graduated from the Faculty of Medicine and Dentistry of Palacký University Olomouc, Czech Republic, in 1989. He received his first-degree and second-degree specialist diplomas in internal medicine in 1993 and 1998, respectively. In 2001, he obtained a specialist diploma in gastroenterology. He completed his doctoral studies in 2006, and he was habilitated at the Faculty of Medicine in Hradec Králové, Charles University, Czech Republic, in 2018. He currently serves as the Head of the Second Department of Internal Medicine at University Hospital Olomouc. He is also a member of the Scientific Committee of the Faculty of Medicine and Dentistry of Palacký University Olomouc and a member of the Scientific Committee of the Faculty of Medicine of Masaryk University, Brno, Czech Republic. Docent Urban focuses his professional activities especially on therapeutic endoscopy. He has authored or coauthored 120 articles, including two dozen papers published in impacted journals. Additionally, he is the principal author or editor of 3 monographs and the coauthor of 3 more. He serves as a member of the Editorial Board of the Czech journal Gastroenterologie a hepatologie *(Gastroenterology and Hepatology). He acted as the President of the Endoscopy Section of the Czech Society of Gastroenterology from 2012 to 2015 and as the President of the Czech Society of Gastroenterology from 2018 to 2022. He is a member of the European Society of Gastrointestinal Endoscopy.*

INDETERMINATE BILIARY STRICTURE – PROBE, FISH OR SCOPE?

Many benign and malignant disorders manifest as biliary strictures. Differential diagnosis is often difficult. According to current literature, 70–80% of biliary strictures are malignant while 20–30% are benign. Timely diagnosis is essential to enable relevant patient management, which includes surgery and oncological treatment in cases of malignancy and endoscopic treatment when benign etiology is proven.

When clinical and laboratory examination and cross-sectional imaging workup are unable to establish a definitive diagnosis, a tissue evaluation is required. Despite improvements in this field, tissue diagnosis remains challenging.

For tissue acquisition, endoscopic retrograde cholangiopancreatography (ERCP) with transpapillary brushing for cytology analysis is recommended as the first-line approach. Although brush cytology (BC) is available and safe, limited sensitivity to malignancy in the range of 19–56% remains an issue. As a result, after initial ERCP, many strictures remain indeterminate. In these cases, advanced endoscopy techniques, such as cholangioscopy with forceps biopsy (sensitivity 90–97%, specificity 93–96%) or endoscopic ultrasonography (EUS) with fine-needle biopsy (FNB) (sensitivity 80%, specificity 97%), are recommended. Nevertheless, these methods are expert-dependent, costly, and not universally available.

FISH is a molecular cytogenetic method based on the detection of fluorescently labeled specific DNA/RNA sequences of the chromosomes with a high degree of sequence complementarity. Typically, FISH using UroVysion® probes enables the detection of aneuploidy for chromosomes 3, 7, and 17 and loss of the 9p21 in patients with suspected pancreatobiliary malignancy. Several studies have demonstrated that FISH, when combined with routine BC, increased the overall sensitivity from the 21–50% range to 58–69% while maintaining high specificity in the IBS.

It the future, next-generation sequencing (NGS) constitutes another alternative molecular cytogenetic method that could significantly increase the sensitivity of BC. Nevertheless, no diagnostic panel of mutations that would be typical for pancreatobiliary malignancy has yet been defined. The most common alterations are mutations of the genes p53, KRAS/NRAS, CDKN2A, SMAD 4, and PTEN. Employment of rapid on site cytology (ROSE) is promising. Finally, artificial intelligence might improve interpratiation of both cholangioscopy and cytology findings.

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SPEAKER

Ondřej **Daum**

Šikl's Institute of Pathology, Faculty of medicine, Charles University, Pilsen, Czech Republic

Prof. Ondřej Daum, M.D., Ph.D., received his medical degree from the First Faculty of Medicine of Charles University in Prague, Czech Republic, in 1998. He obtained a doctoral degree in pathology from the Faculty of Medicine in Pilsen at Charles University in 2007. He was habilitated in 2012 and appointed Full Professor in 2020.

Professor Daum has been affiliated with the Faculty of Medicine in Pilsen since 2004, at present in the role of Professor and Senior Researcher. Since 1999, he has been employed at Šikl's Institute of Pathology of the University Hospital Pilsen, where he currently serves as the Head of the Biopsy and Autopsy Laboratory Division.

His areas of interest include morphology and molecular biology of neoplastic and non-neoplastic diseases of the gastrointestinal tract, hepatobiliopancreatic system, and endocrine system. To date, he has authored or coauthored a total of 118 publications. He acts as a reviewer for several international journals, such as Virchows Archiv *and* Scientific Reports*. Professor Daum is a member of the European Society of Pathology and the Czech Society of Pathologists.*

TISSUE IS AN ISSUE – STRICTURE THROUGH THE MICROSCOPE

Biliary stricture tissue for preoperative diagnostics may be obtained by means of bile duct brushing (BDB) or endoscopic ultrasound fine-needle aspiration (EUS-FNA), the latter one being more appropriate for presumed pancreatic cause of bile duct obstruction. Traditionally, the retrieved material is used to prepare cytological smears, which are investigated in an ordinary light microscope after visualization of the cells by a cytological staining. The evaluation of smears should follow "The Papanicolaou Society of Cytopathology System for Reporting Pancreaticobiliary Cytology", which recognizes 6 diagnostic categories (I. Non-diagnostic; II. Negative for malignancy; III. Atypical; IV. Neoplastic: Benign or Other; V. Suspicious for Malignancy; and VI. Malignant), with possible further specification of the lesion. However, although specificity of cytology reaches 100%, its sensitivity is reported to be about 50% for detection of a malignancy. Fortunately, the diagnostic yield may be increased by supplementing morphological analysis of cytological smears (especially in categories III. and V.) with molecular profiling by targeted next-generation sequencing (NGS) analysis, which is reported to increase the sensitivity up to 93% with maintained 100% specificity. The genetic alterations most commonly detected in malignant strictures involve genes *KRAS*, *TP53*, *PIK3CA*, *ERBB2*, *BRAF*, *PTEN*, *SMAD4*, and *CDKN2A*. But it should be kept in mind, that to achieve satisfactory results, an additional material, apart from smears on glass slides (e.g. a separate brush or FNA-retrieved fluid in a cell storage reagent that stabilizes and protects cellular RNA), must be sent to the lab for NGS analysis.

CHAIRMAN & SPEAKER

Tomáš Hucl

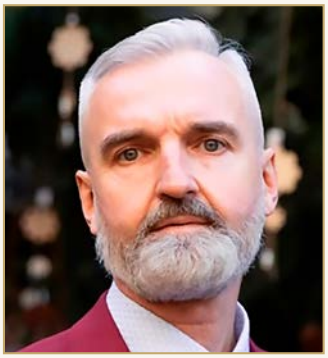
Department of Gastroenterology and Hepatology,
Institute for Clinical and Experimental Medicine, Prague, Czech Republic

Prof. Tomáš Hucl, M.D., Ph.D., graduated from the First Faculty of Medicine of Charles University in Prague, Czech Republic, in 2000. His specialist diplomas are in internal medicine, awarded in 2003, and in gastroenterology and hepatology, awarded in 2008. He received his doctoral degree from Charles University in 2007. He held the post of Associate Professor at Charles University from 2015 to 2021, when he was appointed Full Professor. He was the recipient of several international fellowships, notably at Keio University, Tokyo, Japan, in 2023; at the Asian Institute of Gastroenterology, Hyderabad, India, in 2017; and at Johns Hopkins University School of Medicine, Baltimore, USA, from 2005 to 2007.

Since 2000, professor Hucl has been working at the Department of Gastroenterology and Hepatology at the Institute for Clinical and Experimental Medicine (IKEM). Since 2012, he has served as the Deputy Head of the same department. Among other achievements, he won the second place in the Dr. Bares Award in 2010 and again in 2012. He is the holder of three patents in the field of gene therapy. Professor Hucl is a member of the European Society of Gastrointestinal Endoscopy, where he has also served as the Head of the Scientific Committee since 2023. His other memberships include the United European Gastroenterology, the Czech Society of Gastroenterology, the Czech Society of Hepatology, the Czech Society of Internal Medicine, and the World Endoscopy Organization, where he was a member of the Education Committee from 2014 to 2019.

CHOLANGIOCARCINOMA ENDOSCOPY THERAPY – HEATING AND/OR STENTING

Cholangiocarcinoma (CCC) represents one of the main causes of malignant biliary obstruction. It is diagnosed in most cases at a late stage, with surgical resection only possible in a minority of cases. Palliative chemotherapy and radiotherapy are of limited efficiency and most patients generally do not survive beyond one year. Endoscopic or percutaneous stent placement for biliary drainage is an important part of palliative care. Local ablative therapies are used to induce cell death in areas close to the application site. Radiofrequency ablation (RFA) results from thermal damage created by a high-frequency alternating current released from an electrode into tissue. Temperatures greater than 50°C lead to coagulative necrosis and cell death. Consequently, the release of some intracellular components can be immunogenic, activating local and systemic immunity. Endoscopically delivered luminal RFA is the method most commonly used to treat invisible high-grade dysplasia and to eradicate the remaining Barrett's mucosa after cancer resection. Using an over-the-wire endoluminal biliary catheter, RFA can be introduced to the tumour vicinity from the main bile ducts. The catheter is positioned endoscopically or percutaneously over a wire into the bile duct strictured by cancer, enabling accurate delivery of thermal energy to the surrounding tumour. Technical feasibility, safety and impact on survival, as well as stent patency have all been investigated by numerous studies. Although some research points to a beneficial effect on various parameters, most of the data are derived from retrospective series characterised by limited numbers of patients and a high heterogeneity of patients within and across these studies.



SPEAKER

Martin **Oliverius**

Department of Surgery, Third Faculty of Medicine, Charles University
and University Hospital Kralovske Vinohrady, Prague, Czech Republic

Prof. Martin Oliverius, M.D., Ph.D., FEBS, graduated from Charles University in Prague, Czech Republic, in 1986. He received his first-degree and second-degree specialist diplomas in general surgery in 1989 and 1995, respectively. In addition, he obtained a European diploma in transplantation surgery in 2009. He received his doctoral degree in 2011 and was habilitated in 2012. In 2022 was graduated as a full professor of surgery. Professor Oliverius currently serves as the Deputy Head for Research and Science at the Department of Surgery of the Third Faculty of Medicine, Charles University and University Hospital Královské Vinohrady, Prague. Between 2004 and 2017, he held the position of the Deputy Head of Transplant Surgery at the Institute for Clinical and Experimental Medicine (IKEM) in Prague. Previously, he was also a consultant at the Center of Cardiovascular and Transplant Surgery in Brno, Czech Republic, and a consultant at the Department of Surgical Studies of the Faculty of Medicine, University of Ostrava in Ostrava, Czech Republic.

Prof. Oliverius has published 95 research articles, 12 medical textbooks, and a monograph on small bowel insufficiency and transplantation. Among other achievements, he was awarded a Fellowship of the European Board of Surgery (FEBS) and an Honorary Diploma of the Division of Transplantation of the European Union of Medical Specialists. He served as a Board Member of several professional associations, including the European Liver and Intestine Transplant Association from 2009 to 2017, the European Society for Organ Transplantation from 2016 to 2019, and the Czech Surgical Society from 2016 to 2021. Prof. Oliverius is a member of numerous other associations, including the International Hepato-Pancreato-Biliary Association, the Intestinal Rehabilitation and Transplant Association, and the International Society of Gastrointestinal Oncology.

SURGICAL TREATMENT OF CHOLANGIOCARCINOMA: RESECTION VS. TRANSPLANTATION

Introduction

Cholangiocarcinoma (CCA) is an epithelial malignancy originating from the biliary tract. It has three subtypes based on anatomical location. Intrahepatic cholangiocarcinoma (ICCA) arises from intrahepatic bile ducts. Extrahepatic cholangiocarcinoma arises from the extrahepatic biliary tree and is further subdivide into two perihilar cholangiocarcinoma, also known as Klatskin tumour (KT), and distal cholangiocarcinoma (DCCA). Surgical resection remains the only potentially curative therapeutic option. The approach to surgical resection must consider the functional residual capacity of the liver remnant and adhere to oncological principles of radicality, including a thorough lymphadenectomy. In select countries liver transplantation is be a credible treatment option. It is crucial to note that surgical management differs between Western and Eastern surgeons, with a leaning toward more aggressive surgery in the latter, often yielding superior outcomes. The objective of this presentation is to provide a comprehensive overview of surgical treatment options for cholangiocarcinoma.

Intrahepatic cholangiocarcinoma (ICCA)

Generally, patients with T1-2aN0M0 (stages I–II in the AJCC 7th edition) or T1a-bN0M0 (stages IA–B in the AJCC 8th edition) are considered suitable candidates for liver resection. However, in most medical centers, hepatectomy is not recommended for cases with multiple tumors due to their unfavorable prognosis. Achieving a curative resection with tumor-negative margins remains possible for less than 30 percent of patients. Despite the adverse impact of positive lymph nodes on prognosis, there is still no consensus regarding routine lymphadenectomy. Median survival following curative resection is between 28–30 months and the 5-year survival rate is approximately 30%. A study by Yin L. *et al*., involving 580 patients, revealed that those with multifocal ICCA had a considerably improved prognosis when undergoing radical liver resection compared to those who did not receive surgical treatment. While liver transplantation holds promise, its application in ICCA is currently restricted to a small subgroup of patients, despite its encouraging outcomes.

Klatskin tumours (KT)

Surgery for perihilar cholangiocarcinoma involves some of the most intricate hepatopancreatobiliary procedures. The surgical approach based on the Bismuth-Corlette classification and often necessitates hepatic resection for the attainment of long-term disease control. Radical surgical resection, coupled with Roux-en-Y hepaticojejunostomy and regional lymphadenectomy, is a potential treatment option for select type I lesions. For the majority of lesions, encompassing types II to IV, the optimal approach involves en-bloc hepatic lobectomy or trisectionectomy, often with portal vein resection to secure adequate negative bile duct margins (generally in the range of 5 to 10 mm). Liver transplantation plays a crucial role within multimodal systematic and locoregional treatment. However, its use is limited by the scarcity of available organs. A recent study conducted by *Clavien P.* and colleagues showcased remarkable outcomes associated with liver transplantation, even in the early stages of Klatskin tumors, extending its potential utility to cases deemed resectable.

Distal Cholangiocarcinoma (DCCA)

Distal Cholangiocarcinoma is typically managed through a standardized pancreaticoduodenectomy, and transplantation does not constitute a component of the treatment plan. Resection is contraindicated in cases where there is invasion of distal lymph nodes and major vascular structures.

Conclusion

Surgical treatment represents the sole curative avenue for individuals afflicted by CCA, and when integrated into a multimodal therapeutic approach can extend survival significantly. These procedures predominantly fall within the realm of highly complex surgeries and are typically conducted in specialized hepatopancreatobiliary centers known for their high level of expertise. Traditionally, Asian surgeons have leaned towards broader indications and more aggressive surgical interventions, with a relatively lower utilization of liver transplantation. However, a noteworthy trend is emerging, characterized by an increasing inclination towards liver transplantation in the early stages of CCA, resulting in outstanding outcomes, particularly when employing grafts from living donors.

SPEAKER

Beatrice **Mohelníková Duchoňová**

Clinic of Oncology, Faculty Hospital, Olomouc, Czech Republic

Beatrice Mohelníková Duchoňová, M.D., Ph.D., received her medical degree from the First Faculty of Medicine of Charles University in Prague, Czech Republic, in 2008. She obtained her specialist diplomas in internal medicine and clinical oncology in 2013 and 2015, respectively. She completed her doctoral studies at Charles University in 2011. She worked as an Assistant Professor of oncology at Palacký University Olomouc, Czech Republic, from 2017 to 2022, when she obtained the position of Full Professor. Since 2019, doctor Mohelníková Duchoňová has served as the Deputy Head of Education and Science at the Department of Oncology at Palacký University Olomouc. In addition, she has been working as a researcher at the National Institute of Public Health in Prague since 2008. Previously, from 2009 to 2010, she was affiliated with the Czech Academy of Sciences.

In the last five years, she has published 26 articles and 2 monograph chapters. Furthermore, she is a peer reviewer for several international journals, including British Journal of Cancer, Future Oncology, Clinical Chemistry and Laboratory Medicine, World Journal of Gastroenterology, Central European Journal of Biology, *and others. Doctor Mohelníková Duchoňová serves on the Abstracts Committee of the European Pancreatic Club and on the editorial boards of* Oncology Letters and Pancreatic Disorders & Therapy.

Her professional memberships include the Czech Society of Gastroenterology, the Czech Pancreatic Club, and the Czech Society for Oncology.

CHOLANGIOCARCINOMA ONCOLOGICAL THERAPY

Cholangiocarcinoma (CCA) oncological therapy has made a great advance in the last 5 years. The lecture includes a current view of chemotherapy and its position in complex oncological treatment. Systemic chemotherapy is still the first-line treatment for patients with metastatic and advanced CCA, but the prognosis after this treatment remains poor, with 5-year survival rates below 40%. The cisplatin/gemcitabine doublet demonstrated an overall survival benefit over gemcitabine monotherapy. The TOPAZ-1 study further demonstrated improvements in overall survival as well as in response rate and progression-free survival with the addition of the programmed death-ligand 1 (PD-L1) immune checkpoint inhibitor (durvalumab) to cisplatin/gemcitabine. In the second-line chemotherapy, a modest overall survival advantage with 5-fluorouracil/leucovorin/oxaliplatin (FOLFOX) compared with active symptom control has been demonstrated.

Interestingly, it is approximately 40% of patients with CCA harbour genetic alterations that are potential targets for precision medicine. Therefore, molecular analysis is more than necessary to evaluate options for higher lines of treatment.

The most common clinically relevant mutations are in IDH1/2 and BRCA1/2 genes. An inhibitor of the mutant IDH1 enzyme (Ivosidenib) is the targeted agent that has successfully completed a phase III trial in CCA and has been approved by the Food and Drug Administration and recommended for the treatment of patients with previously treated CCA and IDH1 mutations. Other potential targeted treatment options include fibroblast growth factor receptor (FGFR2) fusions, HER2 amplification, NTRK fusions, and BRAF mutation which will be discussed during the lecture.

CHAIRMAN & SPEAKER

Radan **Brůha**

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and Cooperatio.

Prof. Radan Brůha, M.D., CSc. graduated from the First Medical Faculty of Charles University in Prague, Czech Republic, in 1988. He passed the certification in gastroenterology and hepatology in 1999. Since 2001, he has been an associate professor at the same faculty and in 2016, he was appointed as Full Professor of internal medicine. Since 2019, he is the Head of the Fourth Internal Clinic of the General University Hospital in Prague.
Professor Brůha has been a long-standing member of the board of the Czech Society of Hepatology and its president since 2018. He is a member of the European Association for the Study of the Liver (EASL) and was a member of the Organizing Committee of the EASL Congress in Prague in 2001.

He focused his clinical and research activities on metabolic liver diseases, including nonalcoholic fatty liver disease (NAFLD/MASLD), rare inherited disorders, liver cirrhosis, portal hypertension, and diseases of the biliary tract. In the area of rare diseases, he participates in the European Reference Network for Hereditary Metabolic Disorders (MetabERN). He is also involved in international collaborations in the field of NAFLD, portal hypertension, and Wilson disease.
He has authored or co-authored more than 100 research papers published in peer-reviewed domestic and international journals. Professor Brůha has been distinguished with several awards, including the Dr. Bares Award in 2018.

SLD: EASY DIAGNOSTICS OF LIVER DAMAGE, EXPERIENCE

Steatotic liver disease (SLD), or more specifically Metabolic dysfunction associated steatotic liver disease (MASLD) is a new diagnostic entity, which comprises majority of patients previously referred as NAFLD (Non-alcoholic fatty liver disease). The disease is characterized by the metabolic conditions leading to the accumulation of fat, mostly triglycerides, in hepatocytes (steatosis) which can progress to inflammation (MASH), fibrosis, cirrhosis, and hepatocellular cancer. MASLD affects up to 30% of population worldwide and up to 75% of patients with risk conditions like diabetes or obesity. In addition to liver-related mortality, MASLD is associated with an increased risk of cardiovascular events and extrahepatic tumours.

For the diagnosis of **steatosis**, the ultrasound remains the first line modality, despite low reliability. Promising are the methods based on attenuation of ultrasound signal (CAP); the gold standard for steatosis staging is MRI, regardless of the fact that the initial staging was based on biopsy findings. As a screening test non-invasive indexes like fatty liver index (FLI) could be used for the detection of steatosis. For the diagnosis and staging of **fibrosis**, elastography becomes the standard method, though MRI or liver biopsy is still used in clinical trials. The diagnosis of **steatohepatitis** (MASH) is still based on liver biopsy, but some non-invasive parameters and indexes (for example MASEF score) are promising tools.

Early diagnosis of patients at-risk for fibrosis development is crucial for complex management of affected individuals. MASLD often progress without significant clinical symptoms, emphasizing the importance of screening in patients with risk factors such as obesity, diabetes, hypertension, and hyperlipidaemia. Therefore, identifying these risk factors could the first step toward early diagnosis. As MASLD may be present even in patients with normal values of ALT and AST, non-invasive and cheap tests like ***FIB-4*** should be performed as a screening method for the detection of patients at-risk for fibrosis. The next step for patients with abnormal FIB-4 value is usually the application of more advanced and more expensive method like ELF test or elastography performed at special liver units.

CHAIRMAN & SPEAKER

Libor Vítek

General University Hospital in Prague and 1st Faculty of Medicine,
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Prof. Libor Vítek, M.D., Ph.D., MBA, graduated from the First Medical Faculty of Charles University in Prague, Czech Republic, in 1994. He received his specialist diplomas in internal medicine and clinical biochemistry in 1997 and 2000, respectively. He went on to obtain a doctoral degree in biochemistry and pathobiochemistry from Charles University in Prague in 2001. Additionally, he studied at Prague International Business School, graduating with an MBA in 2005. He was habilitated in 2005 and appointed Full Professor at Charles University in Prague in 2008. Professor Vítek focuses his research on metabolism of bile acids; biological effects of heme oxygenase, carbon monoxide and bile pigments; intestinal metabolism of bile pigments; nutrition and nutritional biochemistry; and oxidative stress. He has published extensively in domestic and international press. He also holds a European and international patent. He serves as a member of the Editorial Board of the International Journal of Molecular Sciences *and* Annals of Hepatology.
He is a member of the American Association for the Study of the Liver and the American Gastroenterology Association. Professor Vítek has been distinguished with the Josef V. Koštíř Prize awarded by the Czech Society for Biochemistry and Molecular Biology in 2021 and an Award of the Minister of Health of the Czech Republic in 2022.

LIVER ENZYMES AND METABOLITES ELEVATION AN IMPORTANT FACTOR IN FATTY LIVER DISEASE

Liver plays a central metabolic role in a human body. Although for decades, elevated liver function tests (LFT's) have been viewed only as markers of the impairment of the liver tissue and metabolism, recent data convincingly indicate that liver enzymes are also strong predictors of cardiovascular and overall morbidity and mortality. Its alarming to note, that elevation of LFT's in the general population all over the world reaches as high as 10–20%, being higher in men compared to women. This is, in particular, due to rapidly increasing incidence of non-alcoholic fatty liver disease (NAFLD), a condition, which is a part of the metabolic syndrome contributing substantially to the risk of cardiovascular and other diseases. Importantly, the predictive value of LFT's for these diseases was reported for all routinely examined liver enzymes, including ALT, AST, GGT and ALP. Hence, it is very demanding to decrease liver enzyme activities in risky patients. Lifestyle measures, including regular sports activities, proper diet with increased use of phytochemical compounds, but also the use of therapeutics known to decrease liver enzyme activities are essential therapeutic approaches for patients with elevated LFT's.

Bilirubin is another analyte that is part of the LFT panel. Although originally considered only an ominous sign of liver diseases potentially dangerous for human health, it becomes now increasingly evident that this molecule represents an important modulator of various biological functions in the human body. This is due to its potent antioxidant effects, but also its immunosuppressive, cell signaling, and metabolism modulating activities with apparent clinical and even therapeutic consequences. These facts have an important clinical impact. While higher serum concentrations of unconjugated bilirubin may serve as an important protective factor against these diseases, low levels of bilirubin are associated with the opposite effect. All of these rapidly evolving biological consequences provide unique therapeutic opportunities to modulate bilirubin concentrations in the systemic circulation as well as in tissues. Indeed, both pharmaceutical and nutraceutical approaches, or those based on modifications of lifestyle have been reported to effectively affect this pathway, with possible long-term clinical effects.

In conclusion, LFT's represent important markers not only of the liver but also of cardiovascular and metabolic diseases. Due to their widespread deterioration, effective measures are required to improve the risks of these diseases in the general population.

CHAIRMAN & SPEAKER

Arun **Sanyal**

Director, Stravitz-Sanyal Institute for Liver Disease and Metabolic Health
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Arun J. Sanyal, MBBS, M.D., graduated from Maulana Azad Medical College in New Delhi, India, in 1981. He completed his residency in internal medicine at the Texas Tech University Health Sciences Center at Amarillo, Texas, USA, in 1987. Between 1987 and 1989, he continued with a fellowship in gastroenterology at the Virginia Commonwealth University Medical Center in Richmond, Virginia, USA. At the same institution, he now serves as a Professor of Medicine, Physiology, and Molecular Pathology in the Division of Gastroenterology. Also at Virginia Commonwealth University, he is currently the Director of the Stravitz-Sanyal Liver Institute for Liver Disease and Metabolic Health. Doctor Sanyal focuses his research on all aspects of nonalcoholic fatty liver disease and nonalcoholic steatohepatitis (NASH), as well as complications of end-stage liver disease. He has authored or coauthored more than 350 articles published in prestigious medical journals, including the New England Journal of Medicine*,* Nature Medicine*, and* Cell Metabolism*. He was a founding member of the Hepatology Committee of the American Board of Internal Medicine. Formerly, he was a Secretary as well as the President of the American Association for the Study of Liver Diseases. At present, he serves as a Chair of the National Institutes of Health NASH Clinical Research Network, as a Chair of the Non-Invasive Biomarkers of Metabolic Liver Disease consortium, and as a Chair of the Liver Forum for NASH and fibrosis. Doctor Sanyal has been distinguished with several awards, including the Distinguished Mentorship Award granted by the American Gastroenterological Association in 2017, the Distinguished Scientific Achievement Award granted by the American Liver Foundation in 2017, and the Distinguished Achievement Award granted by the American Association for the Study of Liver Diseases in 2018.*

BRIDGING NAFLD AND MAFLD: CURRENT EPIDEMIOLOGY AND FUTURE TRENDS

Recently, nonalcoholic fatty liver disease (NAFLD) was renamed as metabolic dysfunction associated steatotic liver disease (MASLD) following a 2-year intense multi-step, multi-stakeholder Delphi process that involved almost 300 participants from 62 countries. The impetus for this was driven by recent publications to rename the disease as Metabolism associated fatty liver disease (MAFLD) which also folded in those whose disease was linked to alcohol use. The motivation for the current effort was (1) to make the diagnosis an affirmative one that was inclusive and not one of exclusion, and (2) to be sensitive to the voice of patients who found the Anglo-Saxon word "fatty" stigmatizing, while trying to preserve the knowledge base linked to NAFLD so that ongoing efforts to qualify non-invasive tests (NITs) and drugs for this disease are not jeopardized. The new nomenclature has been endorsed by over 80 international organizations including major GI and liver societies in North America, South America, Europe and Asia. Several issues have been raised about the new nomenclature and have already begun to be addressed. First, the new nomenclature defined metabolic dysfunction using any one criterion linked to metabolic syndrome as defined by the landmark paper by Alberti *et al.* in 2009 which is foundational to how the condition is diagnosed in the allied fields of cardiovascular medicine and diabetes. It was not clear if patients previously considered to have NAFLD would all meet these criteria and there was particularly concern that those who were lean and had NAFLD would be left behind. Several studies including one from India and one from Latin America have looked at this and found that this is not the case and 95–99% of those with NAFLD are also included by the current diagnostic criteria. The 1–5% who are not represent a mix of patients who are classified now as cryptogenic steatotic liver disease as a distinct subtype. Another major advancement is the definition of criteria to describe the population with steatotic liver disease who simultaneously have metabolic risk factors and who also consume alcohol in amounts higher than the cutoffs used for the previous diagnosis of "non-alcoholic" (< 20–30 gm/day) but not high enough where the disease would be principally attributable to alcohol consumption (> 50–60 gm/day). While this population was well recognized clinically, the lack of clear nosology prevented their formal identification and development of specific strategies for their identification and management. In the few months since the new nomenclature has been published, there is already a growing body of literature about this population and several drug therapies are now being developed for this population. Further, combined approaches including a brief intervention and medical therapies for alcohol use disorder along with therapy directed to the metabolic risk factors are being developed. All of this is good news for patients with steatotic liver disease (SLD). The current burden of disease is tracking prior models and increasing steadily. It is currently estimated that there are 100 million individuals with MASLD and 20 million individuals with metabolic dysfunction associated steatohepatitis (MASH) which was previously referred to as nonalcoholic steatohepatitis (NASH). It is projected that these numbers will increase substantially especially those with advanced fibrosis. Development of advanced fibrosis and cirrhosis is associated with substantial health care resource utilization and costs and the projected increase in costs for this population are expected to be about $16.8 billion annually in the USA with and increase in DALYs to more than 250 000 life years. Together these underscore the need for preventive, early detection strategies linked to access to relatively inexpensive but effective and safe therapies for this condition.

CHAIRMAN & SPEAKER

Krzysztof **Tomasiewicz**

**Department of Infectious Diseases and Hepatology SPSK-1,
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The work was not sponsored nor supported by external sources

Prof. dr hab. Krzysztof Tomasiewicz, M.D., Ph.D., graduated from the Faculty of Medicine of the Medical University of Lublin, Lublin, Poland, in 1991. He completed his specialization in infectious diseases in 1998. In 2021, he was appointed Full Professor by the President of Poland. He is the current Head of the Department and Clinic of Infectious Diseases and Hepatology of the Independent Public University Hospital No. 1 in Lublin. He serves as an expert on the elimination of hepatitis C virus at the invitation of the World Health Organization. Additionally, professor Tomasiewicz acts as a Board Member of the Polish Association for the Study of the Liver and as the Vice President of the Polish Association of Epidemiologists and Infectiologists. In recent years, he has been closely collaborating with the Clinic for Gastroenterology and Hepatology at the University Hospital Essen in Essen, Germany, and with the Department for Gastroenterology, Hepatology, Infectious Diseases, and Endocrinology at Hannover Medical School in Hannover, Germany.
Professor Tomasiewicz is the author or coauthor of numerous impacted publications. He also participated in developing the national recommendation for the management and treatment of hepatitis C virus (HCV), hepatitis B virus (HBV), nonalcoholic fatty liver disease (NAFLD), nonalcoholic steatohepatitis (NASH), and rickettsioses. Formerly a member of the National COVID-19 Medical Council, he is currently a member of the Expert Group for Combating Healthcare-Associated Infections, a member of the Polish Expert Group for HBV, as well as the Chair of the Polish Expert Group for NAFLD/NASH and the Chair of the Polish Expert Group for HCV. He serves as the Editor-in-Chief of the Journal of Clinical and Experimental Hepatology, *as well as a Guest Editor in the field of gastroenterology for the Frontiers publishing house. Professor Tomasiewicz is also a founding member of the Central European Hepatologic Collaboration.*

DIFFERENT CLINICAL MANIFESTATIONS OF SLD

In recent years, the diagnosis, and understanding of nonalcoholic fatty liver disease (NAFLD), recently redefined as steatotic liver disease (SLD) and metabolic dysfunction-associated steatotic liver disease (MASLD), and its relationship with extrahepatic manifestations is gaining better understanding. As MASLD shares common risk factors with cardiovascular diseases (CVD), including obesity, insulin resistance, hypertension, and dyslipidemia, it used to be identified as a potential risk factor for CVD. However the relationship between liver disease and CVD is bidirectional. The exact mechanisms linking MASLD to CVD remain complex and multifaceted, involving metabolic, inflammatory, and vascular pathways. Similar relationship is observed in patients with SLD and chronic kidney disease (CKD), obstructive sleep apnea (OSA), number of neoplasm and many other.

On the other hand SLD is a liver disease with wide spectrum of symptoms. Metabolic-associated steatotic liver disease (MASLD) is a spectrum of diseases ranging from simple steatosis with or without mild inflammation to a necroinflammatory subtype with the presence of hepatocellular injury and cirrhosis. Advancing stages of liver damage that may lead to liver cirrhosis and liver failure. Clinical liver manifestations of SLD are mostly dependent on the stage of liver fibrosis. Up to the second stage patients may present no symptoms, liver decompensation commences. While developing advanced fibrosis may cause signs and symptoms typical for this condition, with danger of cirrhotic complications. However, sometimes signs and symptoms can occur. The most prevalent initial symptoms are fatigue and malaise, which do not seem to correlate with the severity of disease. Hepatosplenomegaly presents in up to 50% of patients. However, as the disease progresses, the liver shrinks in size, whereas the spleen continues to enlarge. Pruritus can also be seen as a result of increased bilirubin levels and jaundice, but pruritus can occur when bilirubin levels are normal. A Cruveilhier-Baumgarten murmur, which is a venous hymn in the epigastric region, may also be heard. There may be presence of hypotension due to reduced total systemic vascular resistance. Similar to many liver disease screening of early stages of SLD requires biochemical and imagine examinations.

Because the new definition of SLD, in addition to MASLD, also includes the coexistence of MASLD and excessive alcohol consumption (MetALD), alcohol-related liver disease (ALD), and SLD of specific aetiology, including drug-induced liver injury (DILI), specific liver diseases (e.g. Wilson's disease, hypobetalipoproteinemia or inborn disorders of metabolism), it should be remembered that the existence of additional factors may completely change the clinical manifestation by the presence of symptoms typical for these causes in various organs.

It should therefore be emphasized that SLD is a heterogeneous set of symptoms of fatty liver damage with manifestations resulting from various etiological factors of fatty liver disease and multi-organ consequences of the disease.

CHAIRMAN

Sylvia Dražilová

2nd Dept. of Internal Medicine Faculty of PJ Safarik University in Kosice and University Hospital, Slovakia

Sylvia Dražilová, M.D., Ph.D., received her medical degree from the Faculty of Medicine of Comenius University in Bratislava, Slovakia, in 1997. She continued her training at the Slovak Medical University in Bratislava, where she received specialist diplomas in gastroenterology, hepatology, and internal medicine. She pursued her doctoral studies in internal medicine at the Faculty of Medicine of Pavel Jozef Šafárik University in Košice, Slovakia, graduating in 2014.
Doctor Dražilová currently serves as the Deputy Head of the Second Clinic of Internal Medicine at L. Pasteur University Hospital Košice. Previously, she worked as a specialist physician at the First Clinic of Internal Medicine at the same hospital. From 2010 to 2020, she was the Head of the Department of Internal Medicine at Poprad Hospital in Poprad, Slovakia.
Doctor Dražilová has authored or coauthored 39 publications and delivered more than 100 lectures at national and international scientific conferences. She is either the head or a member of organizational and scientific committees of the Slovak and Czech Gastroenterology Congress, May Hepatology Days, Hepatology Summer School, and others. Doctor Dražilová is the President of the Slovak Society of Hepatology and the Scientific Secretary of the Slovak Society of Gastroenterology, as well as a member of the Slovak Medical Association and the Slovak Medical Chamber.

SPEAKER

Alexander **Nersesov**

S.D. Asfendiyarov Kazakh National Medical University, Almaty, Kazakhstan, Kazakh Association for the Study of the Liver

Professor Alexander V. Nersesov, M.D., Sc.D., is currently Head of the Department of Gastroenterology at S.D. Asfendiyarov Kazakh National Medical University [Almaty, Kazakhstan], Consultant for the Medical Center of the Administration of the President of the Republic of Kazakhstan, WHO EURO consultant, and Invited Professor for the Department of Propaedeutics, Gastroenterology and Dietetics at the North-Western State Medical University named after I.I. Mechnikov [St Petersburg, Russia].

He studied medicine at the Kazakh State Medical University (1984–1990), completed residency in internal medicine (1990–1992) and postdoctoral program in hepatology at the National Health Organization "Nagasaki Medical Center" [Omura, Japan] (2009). Specializing in the field of gastroenterology and immunology, Dr Nersesov received academic degrees of Candidate in Medical Sciences (1992), Doctor in Medical Sciences (1999), and academic ranks of Associate Professor and Full Professor (2003). Dr Nersesov worked for the Kazakh Research Center of Nutrition [Almaty, Kazakhstan] as a Research Fellow (1992–1999) and later – the Head of the Clinical Department (2000), Professor of Internal Medicine for the Kazakh State Medical Academy [Astana, Kazakhstan] (2001–2008); Professor and Head of the Department of Gastroenterology and Hepatology for the National Research Institute of Cardiology and Internal Medicine [Almaty, Kazakhstan] (2009–2019), and since 2019 – Professor and Head of the Department of Gastroenterology at S.D. Asfendiyarov Kazakh National Medical University [Almaty, Kazakhstan]. Between 2001 and 2008 he combined his academic career with state service at the Ministry of Health of the Republic of Kazakhstan as the Director of Medical Care and Prevention and the Counsellor to the Minister. Professor Nersesov has professional affiliations with EASL, AASLD, APASL, and since 2007 he is the President of the Kazakh Association for the Study of the Liver.

Professor Nersesov's main clinical and research interests are chronic viral hepatitis, autoimmune liver disease and liver cirrhosis complications. He is author and co-author of 192 publications in local and international journals, provides clinical and research supervision, serves as a principal investigator in clinical trials and organizes the main local and international conferences on gastroenterology and hepatology in Kazakhstan.

FATTY LIVER RELATED CO-MORBIDITIES

NAFLD can progress to liver cirrhosis and hepatocellular carcinoma. However, most patients with NAFLD/NASH die due to cardiovascular events. NAFLD is usually associated with obesity, dyslipidemia, insulin resistance (IR) or T2DM and arterial hypertension which are, according to criteria of different societies, defined as a metabolic syndrome. Apart from these metabolic syndrome components, there are some other established linkages of NAFLD such as atherosclerosis, cardiovascular diseases (heart failure, arrhythmia), chronic kidney disease, obstructive sleep apnea, polycystic ovarian syndrome and hypothyroidism. Also according to meta-analysis of 20 trials in almost 120 000 patients, the presence of NAFLD was closely associated with increased co-occurrence of multiple pathological conditions characterizing the metabolic syndrome.
In the recent population-based Korean study the association between FLI index and new-onset hear failure was analyzed in more than hundred thousand healthy persons without comorbidities. As a conclusion, higher FLI was independently associated with increased risk of HF regardless the baseline characteristics.
Despite the growing number of patients, therapeutic approaches remain limited. Presentation will show the results of using ursodeoxycholic acid (UDCA) in NAFLD patients in Kazakhstan. Previously, according to various sources, it was found that bile acids, which include UDCA, are the main integrators of fatty acid and triglyceride metabolism in the liver. The results of our study showed that the use of UDCA in NAFLD leads to a decrease in the activity of inflammatory processes in the liver, its steatosis, and improves lipid metabolism and has potential anti-atherogenic properties.
Also, NAFLD patients with chronic kidney disease (CKD) range approximately from 20% to 50%, suggesting that NAFLD may accelerate progression of CKD, regardless the common risk factors such as hypertension and T2DM. In the meta-analysis of twenty-three studies with almost sixty-four thousand participants, a progressively increased risk of prevalence and incidence of CKD in simple steatosis, NASH and advanced fibrosis was determined, proving that the severity of NAFLD was directly associated with CKD.
Conclusions. NAFLD is associated with metabolic issues and can be denoted as multi-organ metabolic syndrome. Patients with NAFLD should be managed with a multidisciplinary approach. Some interventions and targeted therapies (pioglitazone, GLP-1 agonists, SGLT2 inhibitors, metformin, statins, UDCA, fibrates, ω3 PUFA, RAS blockers, angiotensin receptor blockers, vitamin D) should be because they have or may have some potential benefits for the liver health.

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SPEAKER

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Prof. Jan Piťha, M.D., CSc., received his medical degree from Charles University in Prague, Czech Republic, in 1988. He went on to obtain his first-degree and second-degree specialist diplomas in internal medicine in 1992 and 1997, respectively. Additionally, he obtained a specialist diploma in cardiology in 2003 and in angiology in 2020. He defended his doctoral thesis in 2000 and was appointed Associate Professor of internal medicine in 2015 and eventually Full Professor in 2019.

Professor Piťha serves as the current Head of the Department for Atherosclerosis Research at the Institute for Clinical and Experimental Medicine (IKEM) in Prague. Previously, from 2016 to 2019, he worked at the Department of Internal Medicine of the Second Faculty of Medicine of Charles University. He is the current President of the Forum for Healthy Nutrition, the Scientific Secretary of the Czech Society for Atherosclerosis, and the Secretary General of the International Union of Angiology, among others. He is the author or coauthor of a number of research articles, book chapters, and textbooks. His professional interests involve vascular disorders, especially atherosclerosis and its risk factors, with a gender-oriented approach. He acts as a reviewer for a dozen of international journals, as well as a reviewer for the Czech Health Research Council and the State Institute for Drug Control in the Czech Republic. He is a member of the Czech Society of Internal Medicine and the Czech Society of Cardiology. Professor Piťha has been recognized with an honorary membership in the International Union of Angiology, awarded in 2022, and an honorary membership in the Czech Society of Angiology, awarded in 2023.

LIVER, THE SILENT CULPRIT BEHIND CARDIOVASCULAR MORTALITY

Key words: metabolic associated fatty liver disease, cardiovascular disease, diabetes mellitus type 1

Liver disease, particularly those caused by and associated with metabolic disorders are closely linked with serious cardiovascular risk; they also share many common metabolic pathways with cardiovascular disease, mainly atherosclerosis. From clinical perspective patients even with silent impairment of liver structure and function are prone to develop also atherosclerosis and its clinical consequences as often fatal and/or debilitating myocardial infarction, heart failure, ischemic strokes and peripheral artery disease. The untoward effect of liver dysfunction on cardiovascular system could be mediated indirectly through traditional metabolic risk factors as atherogenic dyslipidemia, impaired metabolism of glucose, subclinical inflammation and/or even directly for instance through some isoenzymes of gama glutamyl transferase, which could destabilize already present atherosclerotic plaques. Diagnosis of impaired liver function and structure, in addition to imaging methods including evaluation of biopsy samples, is provided by establishment of metabolic fatty liver disease (MFLD) or more advanced stages, steatohepatitis also by more available and practical scoring systems based on standard measurements of commonly obtainable laboratory values. For instance, one of available and simple markers is fibrosis 4 score (FIB4S) calculated as ([age × AST]/[platelets × {sqr(ALT)}]) used to identify not only advanced liver fibrosis but also indicating increased risk for future cardiovascular events. In addition to already available management of liver and cardiovascular disease by established strategies, simultaneous treatment of liver and vascular disorders in parallel is an active area of recent research. In our presentation we will cover this broad field by reviewing available information regarding this topic including our own data describing association between macro-/microvascular impairment and liver disease in patients with diabetes mellitus type 1, the latter supposed to be challenging and unique population especially in primary cardiovascular prevention.

SPEAKER

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Václav Šmíd, M.D., Ph.D., graduated from the First Faculty of Medicine of Charles University in Prague, Czech Republic, in 2010. He earned his specialist diploma in gastroenterology and hepatology in 2017. He completed his postgraduate studies and was awarded a doctoral degree in 2019. He is currently an Assistant Professor at the same university. Since 2012, doctor Šmíd has been working at the Department of Gastroenterology and Hepatology, Fourth Internal Clinic, General University Hospital in Prague, Czech Republic. Additionally, since 2019, he has held the position of the Head of the Department of Sonography. In his research, doctor Šmíd focuses on the role of lipids in the pathogenesis of liver diseases and the pathogenesis and treatment of nonalcoholic fatty liver disease (NAFLD). In his clinical practice, he deals with noninvasive diagnostic methods in the detection of liver steatosis and fibrosis, especially in relation to chronic liver diseases. He is also involved in clinical studies, researching particularly the treatment of NAFLD, rare liver diseases, and inflammatory bowel diseases. He has authored or coauthored more than 25 articles published in impacted or peer-reviewed journals. He participated in developing national guidelines on the diagnosis and treatment of NAFLD. In 2022, doctor Šmíd became a Committee Member of the Czech Society of Hepatology.

LIVER AND INSULIN RESISTANCE IN TYPE 2 DIABETES

Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD) is the most common chronic liver disease today and is referred to as the liver manifestation of metabolic syndrome. MASLD begins as simple steatosis. For many years, this was considered a benign condition, while progression to fibrosis and advanced liver disease is associated with the development of an inflammatory condition of the liver parenchyma – metabolic dysfunction–associated steatohepatitis (MASH). Its prevalence in patients with MASLD is estimated to be up to 30%, while it can further progress to liver fibrosis with subsequent progression to liver cirrhosis with all its serious complications. With the increasing incidence of type 2 diabetes mellitus (T2DM), obesity and metabolic syndrome, MASLD is also gaining importance, which, due to the lack of a causal therapy, represents a significant health problem. MASLD is becoming one of the most common causes of cirrhosis and indications for liver transplantation worldwide. These patients also have an increased risk of developing cardiovascular and oncological diseases.

It is essential to identify those patients with MASLD who are at risk of disease progression so that early therapy can be initiated. Recent evidence shows that T2DM is an independent risk factor for MASLD. Patients with MASLD have a higher risk of developing diabetes as they usually express abnormal glucose metabolism. The link between MASLD and T2DM can be described by a spectrum of metabolic disorders represented by insulin resistance, defective hepatic lipidic profile, and triacylglyceride metabolism which lead to fat accumulation, immune responses, and hyperinsulinemia determined by the β-cell dysfunction in T2DM

The only completely effective procedure in the prevention of MASLD is the prevention of risk factors for the development of metabolic syndrome and T2DM, or reduction of body weight in an already developed disease. The treatment of patients with MASLD itself requires close cooperation between doctors of many other specialties. At present, we do not have a causal pharmacological therapy for MASLD, and finding it is one of the main research tasks of hepatology in the 21st century. Treatment of MASLD should always include regimen measures leading to weight reduction, which are inherently very effective. In clinical practice, however, only a fraction of patients achieve the set goals with their help. Currently, MASLD therapy is based on screening and treatment of components of the metabolic syndrome, as well as minimizing alcohol intake. The complex and multifactorial pathophysiology of MASLD significantly complicates the development of effective pharmacotherapy. Current recommended procedures emphasize the need for interdisciplinary cooperation and a comprehensive approach to patients with this disease. For patients with T2DM, therapy with preparations leading to weight reduction (especially SGLT2 inhibitors and GLP-1 agonists) is suitable. The most promising drugs in ongoing clinical trials include semaglutide (GLP-1 agonist) and lanifibranor (PPAR α+δ+γ agonist), for which we expect phase 3 clinical test results soon.

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CHAIRMAN & SPEAKER

Marek **Hartleb**

Head of the Department of Gastroenterology and Hepatology at the Medical University of Silesia Katowice; President of Polish Society of Gastroenterology

Prof. dr hab. Marek Romuald Hartleb, M.D., Ph.D., graduated from the Medical University of Silesia, Katowice, Poland, where he received both his medical and doctoral degree. In 1989, he was the recipient of a Fellowship of the French Ministry of Foreign Affairs and Laboratoires Fournier, which allowed him to spend two years working in the Splanchnic Hemodynamic Laboratory at Beaujon Hospital in Clichy, Paris, France. He was habilitated in 1996 and appointed Full Professor of medicine, with a specialization in gastroenterology and internal medicine, in 2005.

Professor Hartleb currently serves as the Head of the Department of Gastroenterology and Hepatology at the Medical University of Silesia. From 2005 to 2008, he held the post of Dean for Doctorate Degrees of the Faculty of Medical Sciences at the Medical University of Silesia. Additionally, from 2012 to 2019, he was the Head of the Scientific Committee at the same faculty. Since 2021, he has been a member of the Academic Senate of the Medical University of Silesia. Finally, since 2021, Professor Hartleb has acted as the President of the Polish Society of Gastroenterology.

METABOLIC DYSFUNCTION-ASSOCIATED STEATOTIC LIVER DISASE (MASLD) AND HEPATOCELLULAR CARCINOMA (HCC): CLINICAL CHALLENGES OF AN INTRIGUING LINK

MASLD is second or third etiology of HCC in Europe and HCC-MASLD is quickly increasing indication for liver transplantation. About 25% of HCC-MASLD arises in non-cirrhotic liver in which the risk of HCC development is five times higher than in chronic hepatitis C without cirrhosis. Pathogenesis of HCC-MASLD is poorly recognized, but the risk factors of earlier development of HCC in steatotic liver are marked insulin resistance and type 2 diabetes, metabolic syndrome, obesity in childhood, high fat and fructose dietary intake, altered gut microbiota and certain genetic polymorphisms. In patients with MASLD long-term use of lipophilic statins, metformin or aspirin may show chemopreventive effects. HCC-MASLD is clinically different to HCV-related HCC as it is found in more advanced stage usually diagnosed beyond surveillance programs by HCC symptoms. Moreover, patients with HCC-MASLD are older, have lower plasma levels of alpha-fetoprotein and lower MELD score that limit their access to liver transplantation. Survival time of patients with HCC-MASLD only partly depends on cancer progression being also attributed to comorbidities and extrahepatic cancers. At this point, the cost-effective surveillance for early HCC-MASLD is only recommended for patients with diagnosis of cirrhosis, established by biopsy or non-invasive methods, however, the performance of ultrasound is hindered by insufficient efficacy related to obesity and liver steatosis itself. Treatments of HCC-MASLD may be demanding due to increased prevalence of cardiovascular diseases and infective complications. However, survival time after radical therapies is not significantly different to other etiologies of HCC since patients with MASLD have usually preserved hepatic functional reserve after tumor resection and show lower risk of graft failure after transplantation. The significant improvements of survival may only be achieved by better identification of advanced hepatic fibrosis and greater participation of such patients in surveillance schedules using more sensitive diagnostic tools (contrast-enhanced ultrasound, abbreviated MRI, liquid biopsy) as well as by careful assessment of competing risks of death from extrahepatc diseases.

SPEAKER

Wojciech **Lisik**

Vice President of the Medical University of Warsaw

Prof. dr hab. Wojciech Lisik, M.D., Ph.D., MBA, graduated from the First Faculty of Medicine of the Medical University of Warsaw, Poland, in 1994. He obtained his specialist diploma in general surgery in 2001, in clinical transplantation in 2003, and in oncological surgery in 2018. He completed his doctoral studies at the Medical University of Warsaw in 2001, and in the same year, he graduated in business and management with an MBA degree from the University of Warsaw. In 2010, he was habilitated at the Medical University of Warsaw, where he also became a Full Professor in 2016. Professor Lisik currently serves as the Vice President of the Medical University of Warsaw. At the same institution, he holds the post of the Vice Head of the Department of General Surgery and Transplantology.

Professor Lisik focuses his professional activities on transplantation surgery in the field of liver, pancreas, and kidney transplantation. He is involved in a unique national program focusing on obese patients undergoing bariatric and metabolic surgery in a group of patients with end-stage renal, hepatic, and heart failure as a bridge to organ transplantation. He initiated and co-organized a program of simultaneous kidney or liver transplantation in patients undergoing heart transplantation, and he is also a leader of a program of pancreas and simultaneous pancreas and kidney transplantation. He has authored and coauthored a number of research articles, book chapters, and textbooks and is a regular lecturer and presenter at national and international conferences. Additionally, professor Lisik is the founder and Editor-in-Chief of the impacted quarterly journal Annals of Transplantation.

LIVER TRANSPLANTATION IN METABOLIC SYNDROME

Metabolic syndrome, characterized by a constellation of interrelated risk factors such as obesity, insulin resistance, hyperlipidemia, and hypertension, has seen a marked rise globally. The condition has significant implications for liver health, especially contributing to conditions like non-alcoholic fatty liver disease and its progressive form, non-alcoholic steatohepatitis. With the progression of these liver conditions, the demand for liver transplantation in patients with metabolic syndrome is increasing. This abstract examines the intricacies of liver transplantation in the context of metabolic syndrome.

One of the primary challenges of liver transplantation in metabolic syndrome patients is the increased risk of graft failure and complications post-surgery. Factors such as obesity, associated cardiovascular diseases, and diabetes can complicate both surgical procedures and recovery. There's also a heightened risk of post-operative infections and sepsis in these patients.

Additionally, recurrence of steatosis or steatohepatitis in the transplanted liver is a genuine concern. The underlying metabolic derangements remain post-transplantation and can potentially compromise the newly transplanted organ, reducing the graft survival and overall patient outcomes.

Pre-transplant evaluations for patients with metabolic syndrome require a more meticulous approach, considering their cardiovascular risk profile, glycemic status, and overall fitness for the surgery. The choice and regimen of immunosuppression can also be challenging, given the concerns of exacerbating existing metabolic conditions.

Moreover, liver transplantation in metabolic syndrome introduces a need for a multidisciplinary approach, with a focus not just on liver health but also on managing and potentially reversing components of the metabolic syndrome. The post-transplant care, thus, goes beyond standard antirejection regimens, encompassing dietary guidance, physical rehabilitation, and rigorous monitoring of metabolic parameters.

In conclusion, while liver transplantation offers hope for patients with liver disease secondary to metabolic syndrome, it introduces unique challenges that warrant a comprehensive, patient-specific approach. Addressing the broader spectrum of metabolic syndrome both pre- and post-transplant can optimize outcomes and enhance the longevity of the graft and patient survival.

CHAIRMAN

Grażyna **Rydzewska**

Chief of Department of Internal Medicine and Gastroenterology Dept. with IBD Subdivision in National Medical Institute of Ministry of Interior and Administration in Warsaw, Poland

Prof. dr hab. Grażyna Rydzewska, M.D., Ph.D., graduated from the Medical University of Białystok, Poland, in 1982. She specialized in internal medicine, obtaining her first-degree and second-degree specialist diplomas in 1985 and 1989, respectively. She gained international experience at Erasmus Hospital, Brussels, Belgium, where she was visiting in 1989, and at Sherbrooke University, Sherbrooke, Canada, where she was a research assistant between 1991 and 1993. Additionally, she pursued a specialization in gastroenterology, obtaining her diploma in 2000. She completed her doctoral studies at the Medical University of Białystok in 1987 and was habilitated in 1997 at the same university. She was appointed Full Professor of medicine at Jan Kochanowski University in Kielce, Poland, in 2007. Professor Rydzewska has been working at the Central Clinical Hospital of the Ministry of the Interior and Administration in Warsaw, Poland, since 1998. She is the Head of the Clinical Department of Internal Medicine and Gastroenterology with Inflammatory Bowel Disease Unit at the same hospital. She also serves as the Director of the Institute of Nursing and Obstetrics at the Faculty of Medicine and Health Science of Jan Kochanowski University in Kielce. Additionally, she is the President of the Polish Society of Gastroenterology, the President of the Polish Pancreatic Club, and a Council Member of the International Association of Pancreatology. Professor Rydzewska acted as the National Consultant in gastroenterology in Poland between 2004 and 2014.

She focuses her research primarily on pancreatic disorders and inflammatory bowel disease. She has authored and coauthored more than 200 papers and book chapters published in national and international press. At the Central Clinical Hospital of the Ministry of the Interior and Administration in Warsaw, she established and developed a multidisciplinary gastroenterology department. She organized the first inflammatory bowel disease subdivision in Poland as an example of integrated multidisciplinary care for this group of patients. For these patient-centered activities, she was awarded an honorary membership in the patient organization J-elita. Professor Rydzewska has received numerous awards for her clinical and scientific work, including the Silver and Gold Cross of Merit presented to her by the President of Poland. In 2014, professor Rydzewska has been distinguished with the title of Woman in Medicine, and in the last few years, she is cited among the most influential people in Polish medicine.

CHAIRMAN

Milan **Lukáš**

IBD Clinical and Research Centre, ISCARE I.V.F. a. s. and 1st Medical Faculty, Charles University, Prague, Czech Republic

Prof. Milan Lukáš, M.D., CSc., AGAF, received his medical degree from the First Faculty of Medicine of Charles University in Prague, Czech Republic, in 1984. He obtained his specialist diploma in gastroenterology in 1993. He then began working at the Clinic of Internal Medicine of the General Teaching Hospital in Prague. In 1996, he founded the Inflammatory Bowel Disease Working Group, which is affiliated with the Czech Society of Gastroenterology. He was appointed Full Professor at Charles University in 2006. Since 2007, he has served as the Head of the ISCARE Clinical Center. He also acts as a Senior Consultant at the ISCARE Inflammatory Bowel Disease Clinical and Research Center. Among other achievements, he was awarded the prestigious American Gastroenterological Association Fellowship (AGAF) in 2021.

Professor Lukáš has authored or coauthored more than 250 articles, including 39 impacted research papers in international journals, and 12 monographs. From 2010 to 2014, he served as a Board Member of the European Crohn's and Colitis Organisation. Subsequently, from 2014 to 2018, he was the President of the Czech Society of Gastroenterology. Since 2018, he has acted as the First Vice President of the same professional association. In 2011, he became the Editor-in-Chief of Gastroenterology and Hepatology, *a journal published by the association. Professor Lukáš's other professional memberships include the American Gastroenterological Association, the European Crohn's and Colitis Organisation, and the International Organization for the Study of Inflammatory Bowel Disease.*

SPEAKER

Martin **Bortlík**

**Gastroenterology department in Hospital České Budějovice;
First Faculty of Medicine, Charles University, Prague, Czech Republic**

Doc. Martin Bortlík, M.D., Ph.D., graduated from the First Medical Faculty of Charles University in Prague, Czech Republic, in 1994. He received his first-degree specialist diploma in internal medicine in 1997 and his second-degree specialist diploma in gastroenterology in 2000. He defended his doctoral dissertation in 2009 and was habilitated in 2019. He gained international experience at the Digestive Disease and Surgery Institute, Cleveland Clinic, Ohio, USA; at the Texas Medical Center in Houston, Texas, USA; and at the European Postgraduate Gastro-surgical School at the Academic Medical Center, Amsterdam, the Netherlands.

Between 2007 and 2020, docent Bortlík worked at the ISCARE Clinical Center in Prague as a specialist physician and Deputy Head. At present, he is employed at the Department of Gastroenterology of the České Budějovice Hospital, where he serves as the Head of the department. He also works part-time at the Internal Clinic of the First Medical Faculty of Charles University and Military University Hospital Prague, as well as at the Institute of Pharmacology of the same hospital.

Docent Bortlík's main research interests include inflammatory bowel disease and digestive endoscopy. He has published about 110 peer-reviewed papers, 58 impacted papers, and 10 monograph chapters. He serves as the Head of the Czech IBD Working Group and a Board Member of the Czech Society of Gastroenterology. Additionally, he is a member of several professional associations, including the European Crohn's and Colitis Organisation, the European Society of Gastrointestinal Endoscopy, and the American Society for Gastrointestinal Endoscopy. Docent Bortlík acts as a reviewer for international journals such as the World Journal of Gastroenterology, Journal of Crohn's and Colitis*, and* Expert Review of Gastroenterology & Hepatology.

ENDOSCOPIC THERAPY OF CROHN'S DISEASE

Despite the current progress in medical therapy of Crohn's Disease (CD), substantial proportion of these patients still require surgery. Most frequently, patients undergo resections for stricturing and/or penetrating disease behaviour. More importantly, at least one third of them develop postoperative disease recurrence with another stricture. Since the 80th of the past century, endoscopy has been used not only for diagnostic, but also for therapeutic purposes. Specifically, the through-the-scope (TTS) balloon dilation became a standard of endoscopic therapy of (mostly, but not exclusively) anastomotic strictures. Many CD patients benefit from this minimally invasive approach that may postpone, or even prevent from surgical therapy. Data on the results of balloon dilation in CD patients suffer from lack of large, prospective studies. We know, however, that in most patients dilations must be performed repeatedly, and not all types of strictures may be dilated safely and effectively. Another technique that appeared within past decade in this field is electroincision of the stricture, known as stricturotomy. It is based on electrocautery destruction of the tissue in the stricture. Stricturotomy is best used for short, fibrotic strictures, where balloon dilation usually has very short and insufficient effect. Most recently, metallic stents placement has been reported as the method for endoscopic therapy. Data indicates that partially covered, metallic stents placed for limited time may be effective and safe option.

SPEAKER

Piotr **Eder**

Department of Gastroenterology, Dietetics and Internal Medicine,
Poznan University of Medical Sciences, Poland

Prof. dr hab. Piotr Eder, M.D., Ph.D., graduated from the Poznań University of Medical Sciences in Poznań, Poland, in 2007. He received his doctoral degree from the same university in 2012. He obtained his specialist diplomas in internal medicine and gastroenterology in 2014 and 2017, respectively. He was the recipient of several international scholarships, including the United European Gastroenterology's Clinical Visiting Fellowship at Agaplesion Markus Hospital in Frankfurt, Germany, in 2019. Among other achievements, he won the third place in the Dr. Bares Award for the best original paper in gastroenterology in 2018. In 2020, he obtained the position of Full Professor of medicine. He currently serves as the Deputy Head of the Department of Gastroenterology, Dietetics, and Internal Medicine of the Poznań University of Medical Sciences; as the Vice Chancellor of the Medical Science Division at the same university; and as a Board Member of the Polish Society of Gastroenterology.

Professor Eder's research focuses on clinical practice in inflammatory bowel disease (IBD), particularly fecal markers, cross-sectional imaging, and molecular mechanisms of drug action. He has published approximately 200 peer-reviewed articles and book chapters. He participates in guideline development, most recently as the principal author of the Polish Society of Gastroenterology guidelines on ulcerative colitis and as the coauthor of the European Crohn's and Colitis Organisation's Topical Review on Multidisciplinary Perinatal Care in IBD, both published in 2023. In addition, he serves as a reviewer for a number of international journals and as a reviewer for several research projects submitted to the Polish Academy of Sciences, the Netherlands Organisation for Health Research and Development, and the Natural Sciences and Engineering Research Council of Canada. Professor Eder is a member of the Polish Society of Gastroenterology and the European Crohn's and Colitis Organisation.

GASTROENTEROLOGICAL ASPECTS OF PERINATAL CARE IN IBD – FROM GUIDELINES TO CLINICAL PRACTICE?

Inflammatory bowel disease (IBD) constitute a group of chronic disorders of the gastrointestinal tract mainly affecting young people in reproductive age. That is why, it is of utmost importance to adequately address all issues related to sexuality, fertility, pregnancy and lactation both in ulcerative colitis and Crohn's disease.

In this presentation the current knowledge and guidelines on reproductive health in IBD will be presented. The main aim of the lecture will be to discuss the recommendations published recently by the most influential organisations in the field of IBD – European Crohn's and Colitis Organisation (ECCO) and American Gastroenterological Association (AGA) – with emphasis on the proposed diagnostic and treatment algorithms in pregnant women with IBD. The knowledge on the safety and efficacy of the newest therapeutic molecules, as well as surgery, will be also taken into account. Moreover, the general rules of holistic, perinatal care in IBD will be presented, including the supporting role of a dietician and psychologist.

SPEAKER

Zuzana Zelinková

Dpt of Gastroenterology, Nemocnica Bory – Penta Hospitals, Bratislava, Slovakia

Doc. Zuzana Zelinková, M.D., Ph.D., obtained her medical degree from the Faculty of Medicine of Comenius University in Bratislava, Slovakia, in 1998. She earned her specialist diploma in internal medicine in 2001. She further pursued a specialization in gastroenterology at the Department of Gastroenterology and Hepatology of the Erasmus University Medical Centre in Rotterdam, the Netherlands. From this university, she received her specialist diploma in gastroenterology in 2011 and her doctoral degree in 2012. She gained international experience at the Laboratory of Experimental Internal Medicine at the Academic Medical Centre in Amsterdam, the Netherlands, between 2003 and 2006; as well as at the Department of Gastroenterology and Hepatology at the University Hospital of Montpellier, Montpellier, France, between 2000 and 2001.

She currently works at the Center of Inflammatory Bowel Disease of the Bory Hospital – Penta Hospitals in Bratislava. Docent Zelinková has published more than 40 papers dealing with innate immunity in inflammatory bowel disease (IBD) pathogenesis and mode of action and pharmacokinetics of antiTNF molecules and thiopurines.
In her clinical practice, she focuses on the use of bowel ultrasound as a point-of-care tool in the management of IBD patients, care for pregnant IBD patients, pharmacokinetics of biologics, and multidisciplinary management of IBD. She is a member of several professional associations, including the American Gastroenterological Association, European Crohn's and Colitis Organisation, Netherlands Society of Gastroenterology, and Slovak Society of Gastroenterology.

IBD CARE: WESTERN VS. EASTERN EUROPE

With regards to factors influencing the general health care, Western and Eastern Europe differ in life style, exposure of population to various environmental factors as well as organization and reimbursement of health care. These differences are also reflected in IBD care.

With regards to epidemiology, Eastern and Western Europe does not differ in incidence of IBD; however, in Eastern Europe, significantly higher proportion of newly diagnosed IBD patients have complicated disease at diagnosis. In addition, there is higher prevalence of IBD risk increasing environmental factors, especially some with IBD risk associated dietary habits, among Eastern IBD patients.

From the organizational point of view, in Eastern Europe gastroenterologists seem to fulfill several tasks that are provided by other health care providers in Western Europe. This regards mainly the dietary and psychological counselling and education about the disease in general.

Concerning the natural disease course and medical management, the disease course seems to be similar in both parts of Europe, the diagnostic tools are used and accessible in similar extent but there are some significant differences with regards to therapy. Despite the documented good access to biologics in Eastern Europe, significantly lower proportion of IBD patients in Eastern Europe are treated with biologics and immunomodulators.

Concluding, there are significant differences in IBD care between Eastern and Western Europe. These differences putatively influence the health-related quality of life of respective IBD patients' populations and might bring further increase in the utilization of health care system and IBD-related health care cost in Eastern Europe in the coming years. Taking these differences into account might be helpful in tailoring the interventions at societal level aiming at improving IBD care in different regions of Europe.

SPEAKER

Dana Ďuricová

IBD Clinical and Reseach Centre for IBD, ISCARE a.s.,
Prague, Czech Republic

Dana Ďuricová, M.D., Ph.D., graduated from the First Faculty of Medicine of Charles University in Prague, Czech Republic, in 2006. She completed her doctoral studies at the same university in 2012. She received her specialist diploma in gastroenterology and hepatology in 2016. Doctor Ďuricová spent part of her studies abroad between 2007 and 2009 on a scientific internship at Herlev Hospital, University of Copenhagen, Denmark. More recently, in 2017, she gained international experience working on the EPIMAD Registry at Lille University Hospital, France.

Doctor Ďuricová has been working at the Inflammatory Bowel Disease Clinical and Research Center, ISCARE, in Prague since 2010. From 2006 to 2009, she was employed at the Fourth Department of Internal Medicine of the First Faculty of Medicine at Charles University and the General University Hospital in Prague. Between 2013 and 2016, she was a member of the Epidemiological Committee of the European Crohn's and Colitis Organisation (ECCO). Additionally, she has served as a national representative of ECCO since 2020. Besides ECCO, doctor Ďuricová is a member of the Czech Society of Gastroenterology.

SMALL MOLECULES IN THE TREATMENT OF IBD

Inflammatory bowel disease (IBD) is a medically incurable chronic inflammatory condition of the gastrointestinal tract which is accompanied by a number of extraintestinal manifestations in about a third of patients. The course of the disease is highly variable, and in a considerable number of patients leads to decreased quality of life or disability. Introduction and expansion of biological treatment with monoclonal antibodies in the last twenty years represented a big progress in the treatment of IBD. In the last few years, the therapeutic spectrum of IBD has been expanded by a new type of therapy with oral preparations – so-called "small molecules".

JAK inhibitors represent one group of these drugs. JAK-Janus kinase enzymes are four intracellular enzymes (JAK 1, 2, 3 and Tyrosine kinase 2) that mediate response to various cytokines or growth factors involved in a wide range of cellular processes, including inflammatory response, haematopoiesis and immune response. So far, three preparations have been registered for IBD: tofacitinib (non-selective JAK inhibitor with preferential inhibition of JAK 1 and 3), filgotinib (selective JAK 1 inhibitor) and upadacitinib (selective JAK 1 inhibitor). The first two preparation are registered only for ulcerative colitis while upadacitinib also for Crohn's disease. In addition to IBD, JAK inhibitors are also used in the treatment of rheumatoid and skin immune-mediated diseases.

The second group consists of modulators of sphingosine-1-phosphate (S1P) receptors, which are involved in the regulation of important immunological and cardiovascular effects. So far, the only registered representative of this group is ozanimod (registered for the treatment of ulcerative colitis in 2022), which is a S1P1 and S1P5 receptor modulator that regulates the migration of lymphocytes from secondary lymphatic organs (lymph nodes) to the lymphatic and blood vessels. The binding of ozanimod to S1P1 receptor "blocks" the migration of lymphocytes into the peripheral blood stream.

A big advantage of "small molecules" compared to biological preparations is the possibility of oral administration, absence of immunogenicity and an overall shorter half-life of elimination, which represents an advantage in case of the need for a quick interruption of the treatment. When respecting the safety profile of these drugs and their potential risks with regard to the individual patient (disease activity and disease course, comorbidities, age), small molecules provide a very favourable risk-benefit ratio for the patients and significantly expand the therapeutic options for patients with IBD.

SPEAKER

Walter **Reinisch**

**Working Party Inflammatory Bowel Disease (IBD),
Div. Gastroenterology & Hepatology,
Medical University of Vienna**

Dr Walter Reinisch is the Director of the Inflammatory Bowel Disease Study Group at the Medical University of Vienna in Vienna, Austria. He is a founding member of the European Crohn's and Colitis Organisation (ECCO) and was assigned as honorary member after having contributed in various positions. He was an active member in the Scientific and Public Affairs Committee of the United European Gastroenterology (UEG) and has headed the Austrian Inflammatory Bowel Disease Study Group. Dr. Reinisch is also a member of the International Organization for the Study of Inflammatory Bowel Disease (IOIBD) and an appointed chair of the endpoint cluster. Previously, he held the Audrey Campbell Chair in UC Research at McMaster University, Ontario, Canada from 2013 to 2016. Dr. Reinisch has > 420 publications on IBD.

STRATEGIES TO OPTIMIZED TREATMENT OUTCOMES IN IBD

Despite a continuously growing treatment arsenal for Inflammatory Bowel Disease in the majority of patients the targeted maintenance treatment outcomes of both clinical remission and endoscopic healing are not being achieved by individual drugs administered according to approved doses. As a consequence, gastroenterologists would need to get equipped by the assets subsumed under the term of treatment optimization. The main pillars of the treatment optimization tenet are to treat early, treat efficiently, treat selectively, treat to target and treat safely. Utilizing patient and disease characteristics pave the way towards personalized treatment, biomarkers and therapeutic drug monitoring are guiding our management to examine treatment efficiency for achieving outcome targets. Multi-omics are raising the hope for precision medicine. Combining approved treatments and exploring new targets will further increase treatment success. The presentation is aimed to provide a sweeping overview on facts and fictions of treatment optimization strategies in Inflammatory Bowel Disease.


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