UEG 2023

Review of United European Gastroenterology (UEG) Week 2023

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WONDERFUL Copenhagen, Denmark, was the setting for the 31st United European Gastroenterology (UEG) Week, with its slogan of 'Ingest the Best'. More than 11,000 participants from 130 nations joined in person, and many other colleagues from around the world watched the livestreamed event.

Denmark's chic capital city, home to colourful Nyhavn, and Tivoli Gardens, the second oldest amusement park in the world, provided the perfect backdrop for this year's UEG congress. In the largest city in Scandinavia, there was plenty for attendees to do between sessions, from viewing the city from the top of the Rundetårn, to eating traditional smørrebrød.

The annual UEG Week is a main strategic focus of the organisation, and this year, it featured 450 invited faculty members, and a choice of more than 2,600 abstract presentations. Multidisciplinary work is key for UEG, and world-class sessions covered areas of interest across the entire field of gastroenterology.

In the opening plenary session, the presidential address was given by Helena Cortez-Pinto, who stressed how proud she is to be the first female President of UEG: "I am proud to be serving as a role model, and announcing the organisation's efforts in promoting equality and inclusion… [and] empowering women and minority groups." Cortez-Pinto thanked everyone involved in putting on "a large number of activities during and through the year" on the UEG's behalf, 300 of whom are volunteers. She highlighted: "This meeting is more than just science. It is the place where we meet to make change, network, and develop."

Cortez-Pinto also addressed some of the current major challenges in the gastroenterology space, with the unpopularity of some healthcare policies, the impact of pharmaceutical companies promoting "unhealthy products," and the prohibitive cost of carrying out research when part of a smaller group. Cortez-Pinto also discussed the impossibility of balancing privacy with public practice, which promotes further inequalities in access to healthcare. The help or hindrance posed by artificial intelligence was also touched upon.

A session entitled 'Hospitals in Crisis' was led by Marcel Levi, President of the Dutch Research Council (NWO), and Professor of Medicine at the University of Amsterdam, the Netherlands;

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and University College London (UCL), UK. Levi prefaced his talk by referencing the COVID-19 pandemic, and underscored that the "sense of crisis in hospitals has actually remained not only in certain countries, but almost in every country" since the acute stage of the pandemic has waned. Levi gave myriad reasons for this "global crisis," from a shortage of staff and financial resources, to logistical issues.

Other showcased sessions during the opening plenary session covered results from a trial of resmetirom in non-alcoholic steatohepatitis (presented by Jörn Schattenberg, Universitätsmedizin Mainz, Germany), the academic versus industry approach in drug development (Arthur Kaser, University of Cambridge, UK), and early-stage gastrointestinal lesions (Michael Bretthauer, University of Oslo, and Oslo University Hospital, Norway).

Awards were given to five authors, selected from the 4,000 abstracts submitted to UEG this year. The panel of reviewers chose the following recipients: Johan Hardvik Åkerström, Karolinska Institutet, Solna, Sweden, on anti-reflux surgery versus anti-reflux medication; Paul Lopatta, University of Ulm, Germany, on oncogenic GNAS and KRAS signalling in cystic pancreatic neoplasia; Bruce Sands, Mount Sinai Hospital, New York, USA, on a 2-year trial of mirikizumab; Jörn Schattenberg on the aforementioned trial of resmetirom in non-alcoholic steatohepatitis; and Peter Sinonquel, Katholieke Universiteit (KU) Leuven, Belgium, on the use of a computer-aided detection model in colorectal polyp detection.

The recipient of the coveted UEG Lifetime Achievement Award 2023 for outstanding accomplishment was announced as Jan Tack, Head of the Department of Gastroenterology and Hepatology at KU Leuven; Professor of Internal Medicine and Chairman of the Gastrointestinal Motility and Sensitivity Research Group within the Translational Research Center for Gastrointestinal Disorders (TARGID); and President of the Rome Foundation, for his work on a wealth of diverse topics, from gastrointestinal motility to the psychology and physiology of the nervous system.

For now, we hope you enjoy our wealth of content from UEG Week 2023, and we cannot wait for next year's congress in Vienna, Austria. See you there! ●

Babies with Low Birthweight More Likely to Develop Fatty Liver Disease

RESEARCH presented at UEG Week has found that there is a significant association between birthweight and non-alcoholic fatty liver disease, now more often known as metabolic dysfunction-associated steatotic liver disease (MASLD), in young people. The results showed that babies with low birthweight were four times more likely to be diagnosed with MASLD in childhood, adolescence, or young adulthood.

Fahim Ebrahimi, Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm, Sweden, and colleagues, used the nationwide ESPRESSO cohort in order to conduct a population-based case-control study of 165 people aged 25 years and younger, who had been diagnosed with biopsy-proven MASLD between January 1992–April 2017. Each individual with MASLD was matched up to five controls from the general population, based on age, sex, calendar year, and country.

Results showed that children born with a low birthweight (<2,500 g/5 lbs 8 oz) were four times more likely to develop MASLD than those born with a normal birthweight. Babies born as small for gestational age, falling below the 10th percentile, were over three times more likely to go on to develop MASLD early in life compared to those with an adequate birthweight (10th–90th percentiles). Those born small for gestational age or with low birthweight also had a higher relative risk of developing more severe stages of MASLD, in the form of liver fibrosis or cirrhosis.

MASLD has become the most common cause of chronic liver disease worldwide, affecting over 25% of adults in Europe alone, and it is only getting more prevalent with escalating obesity rates. It is also one of the fastest-growing causes of end-stage liver disease, primary liver cancer, and liver transplantation. The team therefore concluded that it is important to develop proactive and effective strategies, such as early and targeted screening, to identify at-risk individuals, and reduce the burden of MASLD. They added: "Further research is needed to fully understand the underlying immunological and metabolic mechanisms. Several studies suggest that both overnutrition and undernutrition during pregnancy can lead to lasting epigenetic changes, that can affect an individual's metabolism for a lifetime." ●

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Can Gut Microbiome Variations Predict Colorectal Cancer Risk?

SIGNIFICANT variations in the gut microbiome have been identified in patients who developed pre-cancerous colonic lesions, according to new research presented at UEG Week 2023.

Colorectal cancer typically develops from pre-cancerous lesion in the gut. Removing these lesions is an effective strategy to prevent colorectal cancer, but existing non-invasive detection techniques lead to unnecessary colonoscopies, due to a high number of false positives.

Ranko Gacesa, University Medical Center Groningen (UMCG), the Netherlands, and colleagues, performed a large-scale prospective study that involved 8,208 patients. They correlated data from the Dutch nationwide pathology database and the Dutch Microbiome Study to identify recorded cases of colonic biopsies from the last 50 years.

The researchers analysed the composition and function of gut microbiomes in patients who developed pre-cancerous lesions between 2000–2015, before a faecal sample was taken, as well as those who developed lesions after a sample was taken, between 2015–2022. These results were compared with the general population, and those who had normal colonoscopy findings.

The results showed that gut microbiomes were varied, depending on the type of lesion, and the composition and function of the microbiome were different among patients with pre-existing and future lesions. Furthermore, those who developed colonic lesions after faecal sampling had increased diversity in gut microbiome compared with those who did not develop lesions. Gacesa noted: "Our findings suggest that the microbiome could act as a valuable tool to improve existing tests, advancing early detection methods for pre-cancerous lesions and colorectal cancer."

The researchers also examined specific bacterial strains to gain more knowledge into the role of the gut microbiome, and see the functions of these bacteria within the gut. They noted that bacteria from the Lachnospiraceae family, *Roseburia*, and *Eubacterium* were associated with developing lesions in the future. ●

> "Existing non-invasive detection techniques lead to unnecessary colonoscopies due to a high number of false positives."

Amitriptyline Beneficial in Irritable Bowel Syndrome

AMITRIPTYLINE, a cheap and widely available prescription drug that is commonly used for a range of health concerns, including depression and chronic pain, has been shown to improve symptoms of irritable bowel syndrome (IBS), according to data from the ATLANTIS trial presented at UEG Week 2023. IBS, which affects approximately one in 20 people worldwide, and causes abdominal pain and changes to bowel movement, can significantly impact quality of life, and available treatments only have a modest effect. While National Institute for Care and Excellence (NICE) guidelines state that low-dose amitriptyline should be considered for IBS, evidence for its benefits has been limited.

For this trial, participants were randomly assigned to one of two groups, receiving either amitriptyline or placebo. The patients had moderate-to-severe symptoms, and an average duration of disease of 10 years. A patient dose adjustment document was developed for the trial, allowing patients to decrease or increase dosage based on the severity of their symptoms and side effects. Those taking amitriptyline reported a bigger improvement in IBS symptoms after 6 months, compared to those on placebo. They were also twice as likely to experience overall improvement in IBS symptoms. Anxiety and depression scores were monitored and found to be unaltered, showing that the benefits of the treatment were linked to the gut, and not due to the antidepressant effect of the medication.

Mild side effects, such as dry mouth in the morning, were reported, but no safety concerns were identified. The trial found a clear benefit of taking amitriptyline, showing that general practitioners can offer it to patients with IBS if first-line treatments do not improve their symptoms.

"The results of this study are hugely encouraging. It shows that a drug already widely available to treat a number of other conditions appears to be safe and effective for people with IBS. The findings the research team have shared around the adjustment of dosages can be tremendously helpful to general practitioners in guiding them when treating patients," stated Andrew Farmer, National Institute for Health and Care Research (NIHR), Oxford, UK. ●

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Tackling Liver Disease Through Alcohol Consumption and Obesity Interventions

INTRODUCTION of a 1 EUR minimum unit pricing (MUP) system on alcohol, and a set of complementary public health policies to deliver this, alongside sugar-sweetened beverage (SSB) tax, and a volumetric tax on alcohol, could lead to a significant reduction of up to 7% in incidence of chronic liver disease (CLD) and lower cancer in Europeans before 2030. A presentation delivered at UEG Week 2023, in Copenhagen, Denmark, provided updates on this important topic.

Researchers employed data sourced from online databases and published literature to project static and dynamic trends in alcohol consumption and BMI, from 2022–2030, utilising a validated and peer-reviewed microsimulation model. Incidence of CLD and liver cancer were measured in France, the Netherlands, and Romania, aiming to estimate the impact of policy interventions targeting alcohol and obesity. The policies modelled were a 1 EUR MUP on alcohol; a combination of 0.7 EUR MUP and a SSB tax; and a combination of 0.7 EUR MUP, SSB tax, and a volumetric tax on alcohol.

The study discovered all policy scenarios had a substantial impact, leading to reduction in annual incidence of CLD and liver cancer, ranging from 2–7%. The 1 EUR MUP policy exhibited the most significant predicted impact, potentially preventing 11,550 cases of CLD, and resulting in 7,921 fewer cases of liver cancer by 2030. The policy interventions combining a 0.7 EUR MUP, a SSB tax, and a volumetric tax on alcohol were also highly effective, potentially preventing 7,317 cases of CLD and 5,390 cases of liver cancer by 2030, when compared to an inaction scenario.

> "Currently, Europe has the largest burden globally of diagnosed liver disease."

This research highlights the focal points for implementing change, and presents the importance of targeting multiple drivers of obesity and alcohol consumption to produce change to the burden caused by CLD and liver cancer. Currently, Europe has the largest burden globally of diagnosed liver disease, with almost 30 million people alone estimated to be living with a chronic liver condition. This study is expected to guide Europeans down a path toward preventing development of disease earlier in the life course. This investigation successfully estimates the future burden of liver disease, and highlights the potential impact of policy interventions. ●