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9TH EURO GLOBAL GASTROENTEROLOGY CONFERENCE

October 24-25, 2016 Valencia, Spain

Scientific Tracks & Abstracts

(Day 1)

Gastro Congress 2016

Session Tracks

Day 1 October 24, 2016

Acid Related Diseases | Gastro intestinal reflux disease | Recent Advancement and Current Research in Gastrointestinal Therapeutics | Endoscopic Innovations in Gastroenterology and surgery

Session Chair
Maxwell Mani Chait
Columbia University College of Physicians, USA

Session Co-Chair
Khalil N Bitar
Wake Forest Institute, USA

Session Introduction

Title: What is the Role of Palliative Care Principles in Cirrhosis Care: Three Initiatives
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Title: Acid-suppressive medications and infections: pro and contra
Alexander Fisher, Australian National University Medical School, Australia

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Bing-Rong Liu, Harbin Medical University, China

Title: BRCA associated pancreatic cancer & other DNA repair deficiencies
Golan talia, Sheba Medical Center, Israel

Title: Anti-inflammatory effect of angiotensin 1-7 (Ang 1-7) in the mouse DSS colitis model
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Title: Differential Diagnosis Plays A Major Role
Anjana Vasudevan, Sri Ramachandra University, India

Amanda J Brisebois, J Gastrointest Dig Syst 2016, 6:7(Suppl)
http://dx.doi.org/10.4172/2161-069X.C1.043

What is the role of palliative care principles in cirrhosis care: Three Initiatives

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Cirrhosis is a chronic progressive illness that affects 4.5% to 9.5% of the population, and an estimated 50 million adults worldwide. Alcohol, NASH and viral hepatitis are reported to be the most common causative factors. HCV is carried by an estimated 170 million people worldwide and approximately 3-4 million new cases occur a year. In 2001, cirrhosis ranked as the 14th and 10th leading cause of death in the world and in developed countries, respectively. Projections suggest that growth in the cirrhosis population is rapid, and is expected to rise to the 12th leading cause of death worldwide in 2020. Despite high mortality rates, frequent hospitalizations, low rates of advance care planning, and high symptom burden, discussions surrounding these issues are infrequent. In an Edmonton, Alberta, Canada Cirrhosis Care Clinic, only 15% of patients have ACP discussions and resulting goals of care designations (GCD), few have clear documentation and management of symptom burden, and Palliative Care specialists are infrequently involved. An outpatient non-cancer Palliative Care Clinic, has been in operation since 2012, and data has been collected for the 45 patients seen with cirrhosis. Retrospective analysis of local inpatient experience has also been published. Within these settings, a multi-disciplinary group at the University Hospital in Edmonton has undertaken multiple research and clinical initiatives, to heighten the awareness of palliative principles applying to the care continuum of patients with cirrhosis. Three ongoing initiatives will be described: 1) Work expanding knowledge translation and utilization with respect to Advance Care Planning in cirrhosis patients. 2) Outpatient non-cancer palliative clinic outcomes in cirrhosis patients describing symptom burden, success of symptom management, ACP utilization and issues in transitions of care. 3) Burden of pain in the cirrhosis population, difficulties with therapy, and utility of non-pharmacologic therapies, including an ongoing study in mindfulness intervention. For all initiatives, educational pamphlets have been created and testing is underway. The multi-disciplinary group is involved in local, Canadian and international education regarding the integration of palliative principles into regular cirrhosis care.

Biography

Amanda J Brisebois is an Internal Medicine and Palliative Care Specialist, who works in Edmonton, Alberta, Canada. She undertook her undergraduate education and Master's degree at Queen's University in Kingston, Ontario Canada. She completed her medical school training in Calgary, Alberta, and her General Medicine Specialty at the Mayo Clinic Rochester Minnesota, University of Calgary in Calgary, Alberta, and University of Alberta, in Edmonton. Since 2000, she has been practicing General Internal Medicine in both inpatient and outpatient settings. She also is a certified Palliative Care Specialist. She has a keen interest in Medical Education, and has won over 15 major teaching awards since starting her practice. Her focused area of research and interest is now in non-cancer palliative care. She has created an outpatient non-cancer palliative care clinic at the University of Alberta, and sees patients with severe symptoms in the major areas of cardiology, pulmonary, renal, and cirrhosis care. She has published in this area, and is collaborating on multiple research projects in these areas. She has a keen interest in interdisciplinary and inter-specialty collaboration, with aims to improve transitions in care when navigating our health systems. She is currently an Associate Clinical Professor at the University of Alberta, and the Medicine Facility Chief at the Grey Nuns Hospital in Edmonton.

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Acid-suppressive medications and infections: Pro and contra

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This review summarizes the benefits, risks and appropriate use of acid-suppressing drugs (ASDs), proton pump inhibitors (PPIs) and histamine-2 receptor antagonists (H2RAs), particularly in the elderly, advocating a rationale balanced and individualized approach aimed to minimize any serious adverse consequences. It focuses on current controversies on the potential of ASDs to contribute to infections - bacterial, parasitic, fungal, protozoan and viral, comprehensively and critically discusses the growing body of observational literature linking ASD use to a variety of enteric, respiratory, skin and systemic infectious diseases and complications (*Clostridium difficile* diarrhoea, pneumonia, spontaneous bacterial peritonitis, septicaemia and other). The pathogenic mechanisms of ASD-associated infections (related and unrelated to the inhibition of gastric acid secretion, alterations of the gut microbiome and immunity), agent-specific side effects and drug-drug interactions are also described. However, accumulating data on the complexity of ASD effects involving important defense systems and resulting in dysbiosis and increased risk for infections, particularly in the elderly, should not invalidate their use as long as it is evidence based. Both probiotics use and correcting vitamin D status may have a significant protective effect decreasing the incidence of ASD- associated infections. The importance of individualized therapy and caution in ASD use considering the possible spectrum of adverse events, the balance of benefits and potential harms, factors that may predispose to and actions that may prevent/attenuate adverse effects is evident. A six step practical algorithm for ASD therapy based on the best available evidence is recommended.

Biography

Alexander Fisher, MBBS, PhD, Doc Med. Sci, FRACP, is a Senior Consultant, Department of Geriatric Medicine, Australian National University Medical School and The Canberra Hospital.

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9TH EURO GLOBAL GASTROENTEROLOGY CONFERENCE

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Endoscopic double-layer suture for the gastrointestinal wall defect after full-thickness resection

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Background & Aims: Successful closure of gastrointestinal (GI) wall defects is the key procedure following endoscopic full-thickness resection (EFR). The aim is to describe a new endoscopic closure method for gastrointestinal wall defects after EFR procedure similar to hand-sewn double-layer suture technique — endoscopic double-layer suture (EDS) and evaluate the safety and efficacy of this method.

Methods: We retrospectively analyzed 15 patients who were presented at our institute between April 2011 and September 2015 with GI tumors (13 of gastric subepithelial tumors, 2 of colonic lateral spreading tumors) and who underwent EFR, with the resulting full-thickness wall defects being closed using EDS technique. The seromuscular and mucosal layers of wall defects were sutured separately by using endoclips with or without endoloops assistance during EDS procedure. Tumors characteristics, en bloc resection rates, suturing procedures and complications were evaluated in all patients.

Results: Successful en bloc resection and closure of wall defects were achieved in 15 cases (100%). The mean maximum size of lesions was 2.4 cm (range 1.0-3.3 cm). The mean size of wall defects after EFR was 2.1 cm (range 0.8-3.5 cm, ≥2.5 cm in 6 cases and ＜2.5 cm in 9). The total mean closure time was 54.9 min (range 18-106 min), the mean closure time was 82.7 min (range 62-110 min) in ≥2.5 cm group and 36.4 min (range 18-60 min) in ＜2.5 cm group (***P***=0.01). The mean number of endoclips during EDS was 26.7 (range 17-58) including 10.6 (range 5-26) in seromuscular closure and 16.1 (range 10-32) in mucosal closure. The suture procedure with endoloops assistance was completed in 7 patients (46.7%). Histological diagnosis was gastrointestinal stromal tumor (GIST) in 8 lesions (4 fundus, 2 bodies, 2 antrum), schwannomain 3 lesions (2 fundus and 1 antrum), heterotopic pancreas in 1 lesion (antrum), cystic fibroma in 1 lesion (fundus) and early colonic adenocarcinoma in 2 lesions. Five patients developed localized peritonitis after treatment, 3 cases of postoperative peritonitis resolved after antibiotic treatment and two cases required placement of an abdominal tube for continuous peritoneal lavaged 3 days without surgical intervention. No patient developed delayed hemorrhage, abdominal abscess and chronic fistula after the procedure. During the mean follow-up time of 19.1 (range 3-52) months, wounds healed in all cases and no tumor recurrence was found in any patients.

Conclusion: EDS is relatively safe and effective method for repairing GI wall defects resulting from EFR. The new closure method mimics hand-sewn double-layer suture technique during surgical procedure. However, EDS for closure of ≥2.5 cm GI wall defect is more time consuming, further control study is required to evaluate the efficacy of this method compared with other endoscopic GI defect suture method.

Biography

Bing-Rong Liu has completed his MD in 2002 from Chongqing Medical University. He was appointed as the Director of Gastrointestinal Department of the Second Affiliated Hospital of Harbin Medical University in June 2004. He has developed so many endoscopic new techniques and published more than 20 papers in reputed journals.

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Golan Talia, J Gastrointest Dig Syst 2016, 6:7(Suppl)
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BRCA associated pancreatic cancer & other DNA repair deficiencies

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Pancreatic ductal adenocarcinoma (PDAC) continues to pose a challenge globally and is expected to represent the second most common cause of cancer deaths in the next two decades. Familial clustering is found in about 10-15% of PDAC cases (FPC) with an apparent autosomal dominant pattern of genetic transmission, suggestive of an inherited cancer syndrome. An estimated 5% of FPC cases have DNA repair pathway aberrations. *BRCA1* and *BRCA2* deficient tumors, particularly in *BRCA1/BRCA2* germline mutation carriers, have a distinct clinical outcome and responsiveness to cisplatin-based therapy. PARPi may offer therapeutic promise in these cases and a phase III clinical trial is currently underway. Another familial subset resembles the BRCA- mutant clinical phenotype (displaying sensitivity to cisplatin therapy and improved prognosis) and maybe referred to as having DNA repair deficiencies (DDR), although their underlying genetic mutation is undefined. Recent whole genome sequencing studies have indicated that a subset of PDAC cases with genomic instability is enriched with BRCA1, BRCA2 or PALB2 mutations and a signature of DNA damage repair deficiency. These subtype of patients who displayed remarkable clinical response to DNA damaging agents thus suggesting the potential therapeutic effects of PARPi, extend beyond germline BRCA 1/2 mutation carriers. PALB2, Rad51, ATM, RPA1, FANCM, REV1L, XRCC and HUWE1 GAs lead to DNA repair defects and may represent potential targets for PARPi. Therefore, it is critical that we identify novel functional and cost-effective tools to identify high-risk DDR cases without the necessarily interrogating each of these genetic aberrations individually. Our group is studying this specific subgroup with clinical and translational studies.

Biography

Golan Talia is a Clinician-Scientist currently conducting translational laboratory research while also serving as the Medical Director in Chaim Sheba Medical Center. Her clinical interest is in patients with pancreatic cancer. She is developing an innovative model based on primary tumor cells obtained from patients' ascites. Her career goals include expertise in clinical medicine, translational laboratory research and drug development.

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Maitham Khajah et al., J Gastrointest Dig Syst 2016, 6:7(Suppl)
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Anti-inflammatory effect of angiotensin 1-7 (Ang 1-7) in the mouse DSS colitis model

Maitham Khajah, Maryam Fateel, Kethireddy Ananthalakshmi and **Yunus Luqmani**
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Background: The role of angiotensin II (Ang II) in the pathogenesis of inflammatory bowel disease (IBD) is well documented but little is known of its more recently identified counter-regulatory peptide Ang1-7 and its signaling pathway ACE2/Ang 1-7/ ***mas***. Enhanced ACE2 expression has been observed in patients with IBD suggesting a role in its pathogenesis.

Aim: To determine the role of Ang 1-7 in modulating colitis severity ***in vivo*** using the mouse DSS colitis model, and its effect on immune cell functions ***in vitro***.

Methods: DSS (3.5% w/v) was used to induce colitis in BALB/C mice and its severity was determined by gross and histological assessments, daily weight changes, and differential WBC counts. Plasma levels of several cytokines and chemokines was measured by proteome profiler kit from R&D systems. Colonic protein level for Ang II, ACE2, ***mas*** receptor, P-ERK1/2, P-p38MAPK, and P-Akt was determined by western blotting and immunofluorescence. Immune cell chemotaxis, apoptosis, and superoxide release was determined using the under agarose assay, Annexin-V/7AAD assay, and luminol oxidation kit respectively.

Results: Enhanced AngII, ACE2, and MasR1 expression was observed in the colon of mice after DSS treatment. Daily IP injections with Ang 1-7 (0.01-0.06 mg/kg, at both prophylactic and treatment approaches) significantly reduced colitis severity at gross and histological level, reduced phosphorylated levels of ERK1/2, p38, and Akt in the colon, and significantly reduced plasma levels of various cytokines and chemokines. Also, Ang 1-7 treatment significantly reduced neutrophil chemotaxis and superoxide release in response to WKYMVm (fMLP-peptide) stimulation, and increased neutrophil and mononuclear cell spontaneous apoptosis.

Conclusion: Ang 1-7 is a promising future therapeutic approach to control colitis severity in part through modulating the activity of various inflammatory signaling molecules, levels of various cytokines and chemokines, and immune cell functions which all are important for the inflammatory process.

Biography

Maitham Khajah has completed his BPharm degree from Faculty of Pharmacy, Kuwait University and obtained his PhD degree from the University of Calgary, Canada. He is currently an Assistant Professor in Kuwait University, Faculty of Pharmacy- Department of Pharmacology & Therapeutics since January 2010. His research interest focuses on studying new targets for the treatment of inflammatory bowel disease. He published various abstracts and peer reviewed manuscripts in international journals. He co-supervised many students for the MSc Molecular Biology Program. Since, he joined Kuwait University, he got various grants as PI and Co-I. He was awarded the Best Young Researcher Award by Kuwait University for the year 2013 – 2014.

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Management of chronic pancreatic in children

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Chronic pancreatitis is a chronic inflammatory disease characterized by fibrosis and destruction of exocrine pancreatic tissue. It is prevalent in many parts of the world with varying epidemiological profiles in different areas. There is a relatively high prevalence of such disorders in southern India. In most series, the etiologies are trauma, biliary tract distension are unknown. In majority of CP in children, medical therapy alone suffices and surgical intervention is reserved for complications. This study was conducted to establish the clinical profile of pancreatic disorders in pediatric patients ranging in age from 1 to 19 years in a tertiary care hospital in southern India. The records of the patients upto 19 years of age diagnosed to have pancreatitis at our institution for the last 12 years were reviewed with a proforma to record the following parameters: Age, gender, presenting complaints, examination findings, investigations, management with medical treatment, surgical intervention or both and complications.There were 50 patients ranging from age group 3 to 19 years, out of which 30 were males and 20 were females. 41 patients were between the ages of 11-19 years, 5 were between the age of 6-10 years, and 4 were between the ages of 1-5 years. 28 patients presented with acute on chronic pancreatitis and 22 patients had calcific chronic pancreatitis. The etiology of CP in 42 patients was idiopathic, in 4 was biliary tract disease, 2 were alcoholic, and 2 were congenital (pancreatic divisum). Complications like pseudo cyst was seen in 19 patients, ascites in 4, diabetes in 3, pleural effusion in 3, splenic thrombosis in one, acute necrotizing pancreatitis in one, retroperitoneal abscess in one and acute renal failure in one patient. Apart from medical line of management, 12 patients underwent stenting of pancreatic duct and 10 underwent surgical treatment for complications. Among the complications, acute relapses of chronic pancreatitis were the most common. 38% of the patients had pseudocysts, 44% had calcific pancreatitis, 6% developed diabetes, 8% had ascites, 6% had pleural effusion and there were 3 deaths due to sepsis.

Biography

Vijay Kumar is a Professor and Head of Dept. of Pediatric Surgery in Kasturba Medical College, Manipal University. He had 41 scientific articles in various international and national journals. He presented 12 scientific papers at various international conferences held at Bangkok, Malaysia, Srilanka, Nepal, Dubai, UK, USA, etc. He presented more than 60 scientific papers at various national conferences, workshops held in different parts of India. He gave more than 30 scientific deliberations at various national, international conferences, workshops, scientific congresses, medical associations and chapters. He attended 15 pediatric surgery and pediatric urology workshops at national and international level as a resource person. He is an active member and office bearer in many social organizations. He organized and participated in many free medical camps in the community. He gave many talks on health awareness in the Radio and TV shows.

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Novel *in vitro* three dimensional culture of human intestinal cell lines to develop a 3D model for inflammatory bowel disease

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In order to develop an *in vitro* 3D cell culture model which mimics the natural environment of the small intestine, pNIPAM-Laponite hydrogel system was investigated. Human colonic adenocarcinoma cell lines: Caco-2 and HT29-MTX have been widely used in *in vitro* 3D culture system as these cells have the ability to differentiate into enterocyte-like cells and mucus producing goblet cells respectively; and exhibit the properties of intestinal epithelia. For these reasons each cell line and co-cultures were investigated in suspension and layered cultures using the novel pNIPAM hydrogels, cultures were maintained under static culture or dynamic culture for up to 8 weeks. Cell viability was assessed using Alamar Blue assay, and histological stains: H&E, Alcian Blue-Periodic Acid Schiffs (PAS) were used to investigate cellular morphological and matrix production. Scanning electron microscopy (SEM) was also used to assess the morphology of cells within the hydrogel. Both cell types remained viable and those cultured in layered cultures under dynamic culture formed villus like structures and produced both acidic and neutral mucins. SEM analysis showed the presence of cells within/on the surface of the hydrogel, where cells formed circular clusters of cells forming mosaics with each cell having microvilli. We conclude that the pNIPAM-Laponite hydrogel could provide a novel 3D intestinal *in vitro* model.

Biography

Rasha Hatem Saeed Dosh has completed her MSc from Al-Mustansiriyah University and worked as a Lecturer at University of Kufa College of Medicine/Iraq. She has published 4 papers in college of medicine journals. She is currently a second year PhD student at Sheffield Hallam University/UK.

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Effects of manuka honey on gastric ulcers in rats

Steve Harakeh[1], **Saad Almasaudi**[1], **Nagla El-Shitany**[1,2], **Aymn Abbas**[1,3], **Umama Abdel-dayem**[1], **Soad Ali**[1] and **Soad Al Jaouni**[1]
[1]King Abdulaziz University, KSA
[2]Tanta University, Egypt
[3]Mansoura University, Egypt

Background & Objectives: Gastric ulcers are among the most common diseases affecting humans. This study aimed at investigating the gastro protective effects of manuka honey against ethanol-induced gastric ulcers in rats. The mechanism by which honey exerts its antiulcer potential was elucidated.

Methods: Four groups of rats were used: control, ethanol (ulcer), omeprazole, and manuka honey. Stomachs were examined macroscopically for hemorrhagic lesions in the glandular mucosa, histopathological changes, and glycoprotein detection. The effects of oxidative stress were investigated using the following indicators: gastric mucosal nitric oxide (NO), reduced glutathione (GSH), lipid peroxide (MDA, measured as malondialdehyde) glutathione peroxidase (GPx), superoxide dismutase (SOD) and catalase. Plasma tumor necrosis factor-α, interleukin-1β, and IL-6 were also measured.

Results: Manuka honey significantly decreased the ulcer index, completely protected the mucosa from lesions, and preserved gastric mucosal glycoprotein. It significantly increased gastric mucosal levels of NO, GSH, GPx, and SOD. Manuka honey also decreased gastric mucosal MDA and plasma TNF-α, IL-1β, and IL-6 concentrations.

Conclusion: Manuka honey likely exerted its antiulcer effect by keeping enzymatic (GPx and SOD) and non-enzymatic (GSH and NO) antioxidants as well as inflammatory cytokines (TNF-α, IL-1β, and IL-6) in a reduced form, inhibited lipid peroxidation (MDA), and preserved mucous glycoproteins levels.

Biography

Steve Harakeh received his BSc and MSc from the American University of Beirut (AUB). He was awarded his PhD degree in Microbiology from the University of Surrey, UK. He spent two years as a Postdoctoral Research Fellow in the Microbiology and Immunology Department, School of Medicine, at Stanford University, USA, and then he was appointed as a Research Associate (Research Assistant Professor) in the same department. He joined the Linus Pauling Institute for Science and Medicine where he worked and published with Professor Pauling who is the only holder of two unshared Noble prizes in the world. After that he was appointed as a Professor of Microbiology at the AUB. Then he worked as a research professor at Dr. Rath Research Institute in California, USA. Currently, he is a Professor at the Special Infectious Agents Unit – Biosafety Level 3 (SIAU). He is the Vice Chairman of the KFMRC Quality Control and Biosafety Committee, member of infectious disease research group. He has recently been appointed as a member of "Yousef Abdullatif Jameel Research Chair for Prophetic Medicine" and is already engaged with them in several ongoing research projects. He is the recipient of several awards and research grants and published over seventy papers in peer reviewed journals and contributed to publishing chapters in many international scientific books.

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Endoscopic finding of minimal change esophagitis and its role in the diagnosis of NERD patients

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Background: Gastro esophageal reflux disease (GERD) is the reflux of gastric contents into the esophagus, leading to esophagitis, reflux symptoms sufficient to impair the quality of life, and increased risk of long-term complications. GERD is divided into erosive (ERD) and non-erosive (NERD) reflux disease, NERD has been regarded as reflux symptoms with the absence of mucosal breaks in the esophagus at endoscopy. However, NERD has been divided into normal and minimal changes based on endoscopic finding.

Objectives: To evaluate the clinical significance of minimal changes at endoscopy and examine whether such changes have diagnostic value in gastro esophageal reflux disease (NERD) or not.

Methods: 60 patients were recruited in this study, they were divided into 2 groups, Group I: Included 30 patients with GERD symptoms in form of heartburn and/or regurgitation more than twice a week with minimal duration of 8 consecutive weeks and troublesome symptoms affecting the daily life activities who were identified by specific questionnaire but negative mucosal breaks at upper GI endoscopy (NERD) as patient group**.** Group II: Included 30 patients without GERD symptoms attending for upper GI endoscopy for any other reason as a control group. Both of them were subjected to full history taking. Full clinical examination with special stress on BMI (weight/height); (normal 19-25 and over weight >25); and diagnostic upper GI endoscopy by expert endoscopists after patient consent was done.

Results: We identified two of the six minimal changes in esophagitis endoscopically as being more common in the patient group with GERD symptoms compared with the other findings which are erythema and white turbid discoloration.

Conclusion: According to our study, there is no clinical relevance in the diagnosis of NERD depending on endoscopic minimal change esophagitis.

Biography

K Abdelwali completed his MBBCh in 2005, Faculty of Medicine, Assuit University and then worked in Assuit University Hospital for 1 year, after that he started working in Manshyet Elbakry Hospital in Cairo, Egypt in the Department of Gastroenterology and Liver Diseases, and then a part time Physiology Lecturer in Misr International University. He finished his Diploma in Internal Medicine in 2014 at Ain Shams University, Egypt. He moved to the Department of Gastroenterology and Liver Diseases in "Sheikh Zayed Al Nahyan" General and Specialized Hospital, Cairo. Now, he is resident in the Department of Gastroenterology and Liver Diseases, Ibn Sina University Hospital, Rabat, Morocco.

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Differential Diagnosis Plays A Major Role

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Gastrointestinal mesenchymal tumors comprise of gastrointestinal stromal tumors (GIST), leiomyomas, leiomyoscarcomas and schwannomas, histologically all appear as spindle cells. Of these, GIST is the commonest occurring and about 60 to 70% are seen in the stomach. On the other hand, schwannomas occur frequently in the head and neck region, about 0.2%, of which 4% are seen in the stomach. Both gastric schwannomas and GISTs grossly appear similar and are spindle shaped cells in microscopic examination. Hence the aid of immune histo chemistry is required to differentiate the two. Both are frequently encountered among middle aged people, with no distinct clinical features. Difference between the two is their prognosis, excellent prognosis is seen in gastric schwannomas as they are mostly benign and GISTs have a 10 to 30% malignant potential. Here we present a 25 year old married, nulliparous female from west Bengal on fertility treatment diagnosed as GIST based upon her UGI scopy and CECT abdomen reports. She was taken up for gasterectomy D2 resection followed by gastrojejunostomy, jejunojejunostomy and a feeding jejunostomy. HPE reports revealed the tumor to be a gastric schwannoma.

Biography

Anjana Vasudevan has completed her MBBS at Chettinad University in the year 2014. She worked at Apollo Speciality Hospital, Perungudi, Chennai, India for almost a year and currently pursuing her Post-graduation at Sri Ramachandra University in the Department of General Surgery. She was accepted by the ICMR to do MS, PhD integrated course. She has published one article, participated and presented in several national and international conferences.

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Scientific Tracks & Abstracts

(Day 2)

Gastro Congress 2016

Day 2 October 25, 2016

Inflammatory Bowel Diseases | Gastrointestinal Bleeding | Pediatric Gastroenterology & Nutrition | Clinical Advances in Liver Diseases

Session Chair
Steven Teich
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Session Co-Chair
Bing-Rong Liu
Harbin Medical University, China

Session Introduction

Title: Long-term restoration of fecal continence after autologous Bio Sphincter implantation in a large animal model of passive fecal incontinence
Khalil N Bitar, Wake Forest Institute, USA

Title: Title: Complications of gastro esophageal reflux disease
Maxwell Mani Chait, Columbia University College of Physicians, USA

Title: Effect of antiviral therapy on serum activity of angiotensin converting enzyme in patients with chronic hepatitis C
Azra Husic-Selimovic, University Clinical Center Sarajevo, Bosnia

Title: Obesity and microbiota among healthy Saudis with various degrees of obesity
Steve Harakeh, Yousef Abdulatif Jameel, Saudi Arabia

Title: The role of Granulocyte-macrophage colony stimulating factor (GM-CSF) in colitis
Maitham Khajah, Kuwait University, Kuwait

Title: Low-dosed lyophilized plant tissue bearing VLPs of HBV small surface antigen as an oral booster vaccine against hepatitis B
Tomasz Pniewski, Polish Academy of Sciences, Poland

Title: Unanticipated mystery unravelled
Anjana Vasudevan, Sri Ramachandra University, India

Title: Laparoscopic total colectomy with ileorectostomy for familial adenomatous polyposis
A.SIMSEK, Gulhane Military Medical Academy, Turkey

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Long-term restoration of fecal continence after autologous bio sphincter implantation in a large animal model of passive fecal incontinence

Khalil N Bitar
Wake Forest School of Medicine, USA

Background & Aim: Internal Anal Sphincter (IAS) dysfunction can lead to fecal incontinence (FI). The objective of this study was to demonstrate sustained restoration of fecal continence using monomeric recordings in a rabbit model of passive fecal incontinence after implantation of the Bio Sphincter.

Methods: The methodology followed in this study include: (1) New Zealand female white rabbits underwent IAS injury with hemi-circumferential IAS sphincterectomy; (2) Bio Sphincters were engineered using autologous IAS smooth muscle and enteric neural progenitor cells. Rabbits were randomized: Control untreated group and Bio Sphincter treated group. In the treated group, 4 autologous engineered Bio Sphincters were implanted 6-8 weeks following the sphincterectomy surgery; and (3) Anorectal manometry was used to measure resting anal pressure and recto-anal inhibitory reflex (RAIR) at baseline, 6 weeks post sphincterectomy, and at 3 months and 6 months after Bio Sphincter implantation.

Results: In the control untreated group, deterioration in fecal hygiene, decreased resting tone and loss of RAIR were observed post sphincterectomy in all rabbits. Autologous Bio Sphincters were successfully implanted into the donor rabbits without complications. Survival rate was 100%. In the Bio Sphincter treated group, restoration of basal tone (37±3 mmHg, $p<0.05$) and RAIR (60±4%, $p<0.05$) were observed at 3 months was sustained for 6 months following Bio Sphincter implantation.

Conclusions: This study provides proof of concept of safety and efficacy of Bio Sphincters and restoration of IAS integrity and function and fecal continence in a large animal model. A regenerative medicine approach to restore impaired IAS function offers a safe and long-term treatment for passive fecal incontinence.

Biography

Khalil N Bitar, PhD, AGAF, is a Professor of Regenerative Medicine, Gastroenterology, Physiology and Biomedical Engineering. He is the Director of Gastroenterology program at the Wake Forest Institute for Regenerative Medicine. He has published more than 100 papers in high impact journals and has been funded by NIH for more than 30 years. He is a fellow of the American Gastroenterological Association.

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Maxwell M Chait, J Gastrointest Dig Syst 2016, 6:7(Suppl)
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Complications of gastro esophageal reflux disease

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Gastroesophageal reflux disease (GERD) is the most common upper gastrointestinal disorder. Esophageal and extra esophageal complications are common and may be potentially life threatening. Esophageal complications include erosive esophagitis, esophageal stricture, Barrett's esophagus and adenocarcinoma of the esophagus. Although, the evaluation and management of GERD is generally the same in the majority of patients, there are specific issues of causation, evaluation and treatment that must be addressed when dealing with patients when GERD complications arise. These include a variety of factors, such as patient age, cognitive impairment, comorbidities, medication side effects and esophageal or extra esophageal organ involvement.

Biography

Maxwell M. Chait completed his MD degree from the University of California School of Medicine at San Francisco. He is a Fellow of several prestigious organizations, including the American College of Physicians, American College of Gastroenterology, American Gastroenterological Association and the American Society for Gastrointestinal Endoscopy. He is a practicing gastroenterologist and assistant professor of medicine Columbia University College of Physicians and Surgeons in New York City He has authored numerous publications in reputed journals. He is the editor-in-chief of the Journal of Liver Disease and Transplantation and serves on the editorial board of several journals.

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Amanda Brisebois, J Gastrointest Dig Syst 2016, 6:7(Suppl)
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Integration of palliative principles in the management of patients with compensated and decompensated cirrhosis

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Introduction: Patients with chronic illnesses such as cirrhosis, often have significant symptoms, psychosocial needs, and desires for heightened knowledge about their illness. Historically, cirrhosis management has focused on controlling or modifying cirrhosis progression, and complications of liver dysfunction. Work has started to focus on a parallel pathway of care, involving symptom management, early advance care planning, and other interventions aimed at improving a patient's ability to cope with chronic illness.

Discussion: A recent paper was published on August 2016 (Brisebois and Tandon 2016), suggesting various ways to heighten cirrhosis care early in the disease trajectory. This discussion will provide detailed strategies for GI specialists to integrate palliative principles into cirrhosis care early in the disease trajectory. Principles to be outlined include modern definitions of palliative care, how palliative principles can be integrated during acute decompensations, how non-palliative specialists can provide this type of care, and how palliative care services can aid the Family Practitioners and Gastroenterology Specialists at various stages of the cirrhosis disease trajectory. This discussion will aim to provide tools for non-palliative care practitioner to heighten patient support in these areas. Evidence for this care approach will be provided, based on the current literature.

Conclusion: Evidence is increasing for integration of palliative principles early in the cirrhosis disease trajectory. With continued work, perhaps interdisciplinary collaborations can heighten inclusive patient care and result in increased patient preparedness for the challenges that come with progressive decline in hepatic function.

Biography

Amanda Brisebois is an Internal Medicine and Palliative Care Specialist, who works in Edmonton, Alberta, Canada. She undertook her undergraduate education and Master's degree at Queen's University in Kingston, Ontario Canada. She completed her medical school training in Calgary, Alberta, and her General Medicine Specialty at the Mayo Clinic Rochester Minnesota, University of Calgary in Calgary, Alberta, and University of Alberta, in Edmonton. Since 2000, she has been practicing General Internal Medicine in both inpatient and outpatient settings. She also is a certified Palliative Care Specialist.

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Azra Husic-Selimovic, J Gastrointest Dig Syst 2016, 6:7(Suppl)
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Effect of antiviral therapy on serum activity of angiotensin converting enzyme in patients with chronic hepatitis C

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Introduction: Renin-angiotensin system (RAS) is frequently activated in patients with chronic liver disease. Angiotensin-II (AT-II), produced by angiotensin converting enzyme (ACE), has many physiological effects, including an important role in liver fibrogenesis. Combined antiviral therapy with PEG-IFN and ribavirin besides its antiviral effect also leads to a reduction in liver parenchyma fibrosis.

Aim: Determining the value of ACE in serum of patients with chronic hepatitis C before and after combined antiviral therapy, as well as the value of ACE activities in sera of the control group.

Materials & Methods: We studied 50 patients treated at Gastroenterohepatology Department, in the time-period of four years. Value of ACE in serum was determined by Olympus AU 400 device with application of kit "Infinity TN ACE Liquid Stable Reagent". HCV RNA levels in sera were measured by real time PCR. HCV RNA test was performed with modular analysis of AMPLICOR and COBAS AMPLICOR HCV MONITOR test v2.0, which has proved infection and was used for quantification of the viruses and monitoring of the patients' response to therapy. Liver histology was evaluated in accordance with the level of necroinflammation activity and stage of fibrosis.

Results: Serum activities of ACE in chronic hepatitis C patients is statistically higher than the values in the control group (p=0.02). Antiviral therapy in chronic hepatitis C patients statistically decreases serum activities of ACE (p=0.02) and indirectly affects fibrogenesis of the liver parenchyma. Correlation between ACE and ALT activity after the therapy was proved (0.3934).

Conclusion: Our findings suggest that the activity of ACE in serum is a good indirect parameter of the liver damage and could be used as an indirect prognostic factor of the level of liver parenchyma damage. Serum activity of ACE can be used as a parameter for non-invasive assessment of intensity of liver damage.

Biography

Azra Husic-Selimovic is an Associated Professor Chair of Internal Medicine, Medical Faculty, University of Sarajevo, Bosnia and Herzegovina and Sub-specialist in Gastroenterology and Hepatology from 2010. She received Doctor of Medical Science with research interest in Hepatology and Viral Hepatitis. She obtained Master of Science in Medicine with scientific area: Hepatology and Alcoholic Liver Disease.

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Steve Harakeh et al., J Gastrointest Dig Syst 2016, 6:7(Suppl)
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Obesity and microbiota among healthy Saudis with various degrees of obesity

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Background: Obesity is a modern global epidemic and is a risk factor for diabetes and cardiovascular diseases (CVD). The prevalence of overweight and obesity in Saudi Arabia is on the rise, placing a huge burden on health and economic resources. Recently, gut microbiota has been reported to be involved in the pathogenesis of many metabolic disorders and diseases, including obesity, diabetes, and CVD.

Objective: The objective of this study was to identify obesity-associated gut microbiota dysbiosis and their relationship to body mass index (BMI) among healthy Saudis with different degrees of obesity.

Methodology: A total of 56 healthy individuals with different degrees of obesity were recruited. All those filled out a questionnaire related to their nutritional habits, health conditions and demographics. Their height, body weight, hip and waist circumference were measured (BMI and age). Stool samples were collected and genomic DNA was extracted from those samples. The DNA samples were sequenced via next generation sequencing (MiSeq), sequencing reads were quality trimmed, analyzed and assigned to taxonomic units using 16S Meta genomics app (Illumina Base Space). One way ANOVA was used to find whether there is a significant between BMI in relation to microbial species

Results: The results indicated the presence of various bacteriological species. ***Porphyromonas circumdentaria, Fervidobacterium islandicum*** and ***Desulforhopalus singaporensis*** were found in the underweight group, while ***Lysobacter soli, Anoxybacillus eryuanensis*** and ***Anoxybacillus flavithermus*** were present in the obese group.

Conclusion/Recommendations: The results indicated that 1538 species were detected. There is some difference among the different species in relation to BMI. Work is in progress to include more human subjects and find the bacteria involved with obesity.

Biography

Steve Harakeh received his BSc and MSc from the American University of Beirut (AUB). He was awarded his PhD degree in Microbiology from the University of Surrey, UK. He spent two years as a Postdoctoral Research Fellow in the Microbiology and Immunology Department, School of Medicine at Stanford University, USA, and then he was appointed as a Research Associate (Research Assistant Professor) in the same department. He joined the Linus Pauling Institute for Science and Medicine where he worked and published with Professor Pauling who is the only holder of two unshared Noble prizes in the world. After that he was appointed as a Professor of Microbiology at the AUB. Then he worked as a Research Professor at Dr. Rath Research Institute in California, USA. Currently, he is a Professor at the Special Infectious Agents Unit – Biosafety Level 3 (SIAU). He is the Vice Chairman of the KFMRC Quality Control and Biosafety Committee, member of infectious disease research group. He has recently been appointed as a member of "Yousef Abdullatif Jameel Research Chair for Prophetic Medicine" and is already engaged with them in several ongoing research projects. He is the recipient of several awards and research grants and published over seventy papers in peer reviewed journals and contributed to publishing chapters in many international scientific books.

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The role of Granulocyte-macrophage colony stimulating factor (GM-CSF) in colitis

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University of Calgary, Canada

Background: GM-CSF is a well-established priming agent and exerts proliferative effects for hematopoietic cells. Recent evidence suggests a potent chemotactic property towards neutrophils ***in vitro***.

Aim: To examine the role of GM-CSF in neutrophil recruitment to the colon ***in vivo*** and its effect on modulating colitis severity using the 2, 4, 6-trinitrobenzene sulphonic acid (TNBS) model in mice.

Methods: Colitis was induced by a single intra rectal injection of TNBS (4mg, 20% ethanol) at day 1. Animals were treated with a single i.p injection of neutralizing anti-GM-CSF antibody (100 µg/mouse) on day 1, or multiple injections on day 1,2,3, and 4, and sacrificed on day 5 post-induction of colitis. Control mice were injected with i.p saline (vehicle) plus TNBS. On another experimental setup, colitis was induced in GMCSFRβ$^{-/-}$ and compared to wild type (WT) mice. Results: enhanced GM-CSF expression (at both gene and protein levels) was observed in colonic tissues at day 3 and 7 post colitis induction. A single injection of GM-CSF antibody did not modulate colitis severity, while multiple injections significantly reduced colonic MPO activity and colitis severity. In the GMCSFRβ$^{-/-}$ mice, colonic MPO activity was significantly reduced post colitis induction but no improvement in colitis severity was observed compared to WT mice.

Conclusion: Anti-GM-CSF therapy significantly reduced neutrophil recruitment to the colon leading to reduced colitis severity.

Biography

Maitham Khajah has completed his B. Pharm degree from Faculty of Pharmacy, Kuwait University and obtained his Ph.D. degree from the University of Calgary, Canada. He is currently an Assistant Professor in Kuwait University, Faculty of Pharmacy, Department of Pharmacology & Therapeutics since January 2010. His research interest focuses on studying new targets for the treatment of inflammatory bowel disease. He published various abstracts and peer reviewed manuscripts in international journals. He co-supervised many students for the M.sc Molecular Biology Program. Since he joined Kuwait University, he got various grants as PI and Co-I. He was awarded the Best young researcher award by Kuwait University for the year 2013 – 2014.

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Tomasz Pniewski, J Gastrointest Dig Syst 2016, 6:7(Suppl)
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Low-dosed lyophilized plant tissue bearing VLPs of HBV small surface antigen as an oral booster vaccine against hepatitis B

Tomasz Pniewski
Polish Academy of Sciences, Poland

The continued HBV high prevalence coupled with deficiencies in vaccination programs stimulate research on a new type of vaccines. Potential orally administered plant-based vaccine is highly attractive regarding efficacy, cost-effectiveness and availability of mass hepatitis B prevention. Freeze-dried oral formulations facilitate elimination of complex purification steps, size reduction and better stability during storage, as well as ensure controlled administration regime in minimized medical facilities. The aim of presented study was to develop a lyophilization protocol facilitating successful processing of lettuce leaf tissue containing S-HBsAg formed into VLPs (Virus-Like Particles). Several drying profiles and excipients as well as effects of freezing rate and post-process residual moisture were analyzed. The profile of 20 °C for 20 hours for primary and 22 °C for 2 hours for secondary drying as well as sucrose proved the most efficient stabilization of S-HBsAg during freeze-drying. The process was highly reproducible (86-97%) and provided a product with VLP content up to 200 µg per g DW. Atmosphere of nitrogen proved to preserve S-HBsAg VLPs for minimum one year at temperatures up to 37 °C. Animal trials confirmed immunogenicity of processed tissue powder with S-HBsAg, used as an oral booster vaccine. Low-dosed (5-200 ng) preparation elicited anti-HBs response at level of commercial injection vaccine (around 1000 mIU/ml), together with growth population of specific B and T lymphocytes and only slightly increased population of Tregs. As a result, a plant-derived semi-product with good long-term stability and immunogenicity of S-HBsAg was obtained for the definite formulation of oral booster vaccine against HBV.

Biography

Tomasz Pniewski has completed his PhD from the Institute of Bioorganic Chemistry PAS and Postdoctoral studies from Thomas Jefferson University, USA. He has worked in the Institute of Plant Genetics PAS since 2003. He is the Head of Biotechnology Department and for two years also worked in the Wielkopolska Centre of Advanced Technologies as an Expert for organization and equipment. He has published more than 25 papers in reputed journals and has gained 6 patents on plant-derived vaccines.

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Anjana Vasudevan, J Gastrointest Dig Syst 2016, 6:7(Suppl)
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Unanticipated mystery unravelled

Anjana Vasudevan
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Embryologically the ventral bud develops into primitive foregut and tracheobronchial tree. Any malformation in this would cause a cystic lesion along the tracheobronchial tree or the foregut. The incidence of this occurring is about 1 case per 68,000 populations. Here, we present a case of sublingual swelling in a 22 year young female, with no other complaints. Her history was impeccable. All routine investigations were normal. MRI head and neck suggested a ranula. She was planned and taken up for surgery. The excised specimen was sent to histopathological examination which revelled the swelling to be a bronchogenic cyst. Bronchogenic cysts are an embryological anomaly and are found anywhere along the foregut. They can present in both adults and children. 7 to 1 % of all foregut cysts are bronchogenic cysts says literature. These cysts are generally asymptomatic but have a 10% chance of turning malignant.

Biography

Anjana Vasudevan has completed her MBBS at Chettinad University in the year 2014. She worked at Apollo Speciality Hospital, Perungudi, Chennai, India for almost a year and currently pursuing her Post-graduation at Sri Ramachandra University in the Department of General Surgery. She was accepted by the ICMR to do MS, PhD integrated course. She has published one article, participated and presented in several national and international conferences.

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9TH EURO GLOBAL GASTROENTEROLOGY CONFERENCE

October 24-25, 2016 Valencia, Spain

Video Presentation

Gastro Congress 2016

Gerard E Mullin, J Gastrointest Dig Syst 2016, 6:7(Suppl)
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9TH EURO GLOBAL GASTROENTEROLOGY CONFERENCE

The gut balance revolution

Gerard E Mullin
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The pathophysiology of obesity is still unknown but there is mounting evidence that the gut microbiome, intestinal permeability and systemic inflammation may play an important role in disease pathogenesis and possibly treatment. Alterations in diet have been shown to shift the gut microbiome's effects on metabolism and regulation of body weight. This session will provide a focused overview of the scientific literature regarding the potential role of gut microbiome as a therapeutic target of weight management. The lecture will first review the pathophysiology of obesity from a functional medicine perspective and discuss how a functional medicine evidence-based approach can achieve optimal weight management by 3 steps: 1) Remove; 2) Restore; and 3) Renew. Learning objectives: 1) To discuss the influence of the gut microbiome on energy metabolism; 2) To understand how disruption of the gut microbiome can lead to obesity; and 3) To know how prebiotic and probiotic foods and supplements may influence weight by favorably altering the gut microbiome.

Biography

Gerard E Mullin, MD, is a Board-Certified Internist, Gastroenterologist and Nutritionist. He is an Associate Professor of Medicine and Director of Integrative GI Nutrition Services at the Johns Hopkins Hospital. He is regarded as an authority in Integrative Gastroenterology. He teaches medical professionals at international conferences on the role of nutrition and lifestyle and the gut microbiome in digestive health and weight control. He is the author of several professional desk references and trade books including his latest: *"The Gut Balance Revolution: Boost Your Metabolism, Restore Your Inner Ecology, and Lose the Weight for Good!"*

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