



International Conference on
GASTROENTEROLOGY

June 25-26, 2018 | Dublin, Ireland

DAY 1
Special Session



David William Molloy

University College Cork, Ireland

Biography

David William Molloy is M.B, B.Ch, B.A.O. (1977); M.R.C.P. IRELAND (1980); L.M.C.C. (May 1983); F.R.C.P.(C) (1985) Internal Medicine and Geriatric Medicine - graduated from UCC in 1977 and was appointed as the Chair of the Centre of Gerontology and Rehabilitation in September 2010. Prior to this he was Professor of Medicine at McMaster University, Canada and St. Peter's McMaster Chair in Aging. Professor Molloy has an extensive publication history in Dementia and current research interests include advance directives, clinical trials in dementia and efficient use of acute hospital services for older people.

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“LET ME DECIDE” ADVANCE CARE DIRECTIVE

Advance care directives are documents that state a people wishes for health and personal care in a future time if they are unable to communicate them. There are two types: instructional directives or living wills where people state what they want done circumstances e.g. I don't want CPR if my heart stops. The second type of advance care directive is where people nominate another to make decisions on their behalf if they are unable to do so. This is the “proxy directive” like an enduring power of attorney for health care. Let ME Decide is a book, now in its 27th edition, that contains an advance care directive that allows individuals to give instructions and nominate another to make decisions for them if they are incapacitated. This presentation will discuss data from about twenty countries where we studied how physicians, nurses and the public would make decisions for a man with dementia who was admitted to the emergency department with an acute life threatening gastrointestinal bleed. We report how choices vary depending on whether we are making decision for unknown patients. family members or ourselves. The responses were affected by age, training, culture. legal concerns and ethical beliefs. We also systematically used Let Me Decide in nursing homes in Canada, Australia and Ireland. Hospitalisations were reduced by 70%. This is one of the few interventions that reduces hospitalisation, promotes patient autonomy, takes family and health care professionals “off the hook” because they don't have to make these decisions, reduces mortality, reduces health care costs and improves the quality of care at the end of life.



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Scientific Tracks & Abstracts

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SESSIONS

June 25, 2018

Gastrointestinal Disorders | Inflammatory Bowel Diseases | Gastrointestinal Pathology | Gastrointestinal Surgery | Clinical Nutrition in GI Diseases | Digestive and Liver Diseases | Pancreatic Disorders

Session Introduction

Session Chair

Lynnette R Ferguson
Auckland University
New Zealand

Session Co-chair

David William Molloy
University College Cork
Ireland

Title: Small intestinal bacterial overgrowth in patients post major upper gastrointestinal surgery

Melissa Dooley, GastroLife and St. James's Hospital, Ireland

Title: Impact of centralization, a single centre audit of surgical outcomes of rectal cancer

Athar Sheikh, South Tipperary General and University Hospital Waterford, Ireland

Title: Immediate outcome of outpatient laparoscopic cholecystectomy

Syed Altaf Naqvi, Manchester Royal Infirmary, UK

Title: How dietary maillard reaction products modulate intestinal homeostasis

Pauline M Anton, Institut Polytechnique UniLaSalle, France

Title: Solid pseudopapillary neoplasm of the pancreas - case report of a rare tumor

Diana Pescaru, Central Military Emergency University Hospital, Roomania

Title: Anatomical liver resection for initially unresectable giant hepatocellular carcinoma in elderly patient: A case report

Iulian-Andrei Gilca, Central Military Emergency University Hospital, Roomania

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Melissa Dooley, J Gastroenterol Dig Dis 2018, Volume 3

SMALL INTESTINAL BACTERIAL OVERGROWTH IN PATIENTS POST MAJOR UPPER GASTROINTESTINAL SURGERY

Melissa Dooley

GastroLife and St. James's Hospital, Ireland

A review of 87 patients who underwent a glucose hydrogen breath test (HBT) for small intestinal bacterial overgrowth, following a gastrectomy or esophagectomy, was carried out in the GI Function Unit, St. James's Hospital, Dublin. Exclusion criteria included complicated major upper GI surgery and surgery performed for nonmalignant diagnoses. Statistical analysis was performed to evaluate the association of specific factors and the development of SIBO. Hydrogen breath tests were carried out using the Gastro+ Gastrolyzer (Bedfont Scientific Ltd, UK). The overall rate of positive HBT's post-surgery was 53%. There was no significant difference in positive HBT results according to surgery type. A subgroup of 18 patients treated with rifaximin had follow up assessment post-surgery. Significant improvements were reported in flatulence, borborygmia, and foul-smelling stool. Overall impact of GI symptoms on quality of life was significantly reduced (median score 5.39 vs 3.78, $P < 0.001$). In our clinic, HBT is the method employed to evaluate patients with potential SIBO owing to the procedures simplicity, safety, and lack of invasiveness.

BIOGRAPHY

Melissa Dooley qualified as a Clinical Measurement Scientist in 2008 obtaining a first class honors Degree. She commenced employment as a Gastrointestinal Physiologist in St James's Hospital, Dublin and began a two-year specialized Physiology course through De Montfort University, Leicester. In 2016 Melissa graduated with a Master of Philosophy from the Dublin Institute of Technology for her research on Small Intestinal Bacterial Overgrowth in Post Esophagectomy and Gastrectomy Patients. Melissa is a fully accredited Physiologist and is a member of both the Irish Institute of Clinical Measurement Scientists and the British Society of Gastroenterology. Protocols established during her research have been implemented in St. James's Hospital to improve patient services and better practices. Melissa was awarded the RES MED/PEI award in 2008 by the Dublin Institute of Technology for her outstanding academic achievements.

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IMPACT OF CENTRALIZATION, A SINGLE CENTRE AUDIT OF SURGICAL OUTCOMES OF RECTAL CANCER

Athar Sheikh

South Tipperary General and University Hospital Waterford, Ireland

Cancer strategy 2006 in Ireland suggested centralization of Rectal cancer in 8 designated cancer centres. University Hospital Waterford is one of the first centres in Ireland to implement the policy in 2010. We carried out two audits, Audit 1 in 2014 and Rectabase in 2017 to compare the outcomes and impact of centralization at our centre.

BIOGRAPHY

Athar Sheikh completed his higher surgical training in Ireland through Irish residency programme of Royal College of Surgeons in Ireland. He qualified his FRCS(Gen) in 2008 and has been practicing as a consultant General and Colorectal Surgeon at South-West Hospital Group Ireland.

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IMMEDIATE OUTCOME OF OUTPATIENT LAPAROSCOPIC CHOLECYSTECTOMY

Syed Altaf Naqvi, A Chandio and SM Naqvi

Manchester Royal Infirmary & Trafford General Hospital, UK

Introduction: There has been revolution in Surgery over the past four decade's recent advances in surgical and anaesthetic techniques financial incentives for the hospital have changed the emphasis in patient selection in day surgery, the increase in day surgery rates for appropriate procedures has the potential to improve the service for patients by achieving shorter waiting times, allowing patient choice and making best use of NHS. The Royal College of Surgeons of England, in 1992, concluded that day surgery is better than inpatient care for many conditions and that it can be an effective way of reducing waiting times

Objective: Aim of this study was to find out safety and the immediate outcome of laparoscopic cholecystectomy as a day case in District General Hospital

Methods: Retrospective identification of 101, patients underwent a laparoscopic cholecystectomy as a day case following parameters: age, gender, comorbidities obesity, presentation with acute cholecystitis, pancreatitis or obstructive jaundice. Study period from November 2015 to October 2016.

Results: Eleven patients (10.89) patients were unplanned admission and transferred to a Regional Hospitals. Three patients (2.97%) required conversion to open cholecystectomy. One patient (0.99%) required drain insertion, and five patients (4.95%) pain control. Two patients (1.98%) bleeding one from the Gall Bladder fossa which was controlled, another patient developed an epigastric port bleeding and gone Re-laparoscopy and resolved the issue with removal of clot and control of bleeding. Ninety (89.10 %) patients were discharged home after laparoscopic cholecystectomy from a district hospital.

Conclusion: Day case Laparoscopic cholecystectomy can be performed safely in District General Hospital, shorter waiting time, allowing patient choice, economic benefit, and making best use of NHS.

BIOGRAPHY

Syed Altaf Naqvi is a General Surgeon with a wide range of experience in the different surgical sub specialties. After qualifying from Dow Medical College Karachi Pakistan in 1982, He undertook General Surgical training in a variety of posts including the University Hospital Galway, St James's Hospital Dublin and District Teaching Hospital Epsom UK. His specialist training was undertaken in Ireland & United Kingdom. He joined as a Permanent Consultant at University Hospital Limerick in July 2003-June 2015. Now He has involved in teaching and training.

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HOW DIETARY MAILLARD REACTION PRODUCTS MODULATE INTESTINAL HOMEOSTASIS

Pauline M Anton

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A large body of literature describes the prime importance of food in the development and the modulation, in youth and adults, of gut homeostasis primarily due to its ability to modulate the microbiota profile. However, little is known about the incidence of home or industrial food process and its consequences on intestinal homeostasis. This presentation will be aimed reviewing the recently published data on gut homeostasis modulation by dietary Maillard Reaction Products (MRPs). This is a large family of neoformed compounds generated by the reaction of a reducing sugar with lysin/asparagin-rich proteins generated *in vivo* or during heat treatment of food. Among things, they confer to the food matrix its brownish colour, its flavour and most of the time contributes to the food nutrition properties modulation. In the body, some MRPs tend to accumulate in organs while aging and are often associated with chronic elderly diseases such as diabetes, atherosclerosis or kidney failure. MRPs are divided in a large diversity of molecular weight compounds ranging from early and advanced-glycation end products (AGEs) to terminal complex macromolecules called melanoidins. In general, they are present as a mix in food which renders the characterisation of their effects complex. The purpose of this review of literature will be to highlight the consequences of heat treatment of food, and more especially of AGEs or melanoidins, on the modulation of immune orientation, intestinal microbiota profile, or gut inflammatory response. The presented works will be aimed at pointing out the variability of their consequences on gut homeostasis depending on the form of MRPs studied (e.g., AGEs versus melanoidins) or the physico-chemical properties of the food matrix (e.g., bread crust/crumb; mildly to highly treated rodent chow ...) or the inflammatory model studied. We will present how MRPs may modulate the Th immune response, the risk of developing food-induced immune disorders and their ability to modulate the course of inflammatory bowel diseases. This is a very important topics in reconsideration of western diet and is necessary to consider when making recommendation to patients.

BIOGRAPHY

Pauline M Anton has worked at Dr Bueno's Laboratory in Toulouse (France) on the induction by pesticides residues of a low-grade gastro-intestinal inflammation. She got her PhD in Digestive Pathophysiology, Nutrition and Food Safety from University of Aix-Marseille III (France). She has then spent three years in Harvard University (Beth Israel Deaconess Medical Center - Boston) in Dr Pothoulakis' Lab as a post-doctorate and worked on the neuro-endocrine modulation of *C difficile*-induced intestinal inflammation. She is, since then, an Associate Professor in Physiology in the Institut Polytechnique UniLaSalle (France). She has published more than 30 articles in reputed journals and is regularly proposed as a reviewer of pairs' works.

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Note:

SOLID PSEUDOPAPILLARY NEOPLASM OF THE PANCREAS - CASE REPORT OF A RARE TUMOUR

Diana Pescaru, L Mosoia Plaviciosu, I Gilca, Th Artenie, F Bold and T Calu

Central Military Emergency University Hospital, Romania

Solid pseudopapillary neoplasm of the pancreas represents a rare form of pancreatic tumour. It is frequently found in young women. SPEN it is considered a border-line tumour, with low grade malignant potential and with curable outcome if complete surgical resection is performed. We present a case of a 26 years old woman admitted in our unit for progressive epigastric pain radiating to the left hypocondrium, with no relationship to food or bowel movements. Laboratory findings, including tumour markers were in normal range. Imaging findings (CT and MRI) revealed a voluminous tumoral mass (11/12 centimetres) located in the body and tail of pancreas with extension to the splenic hilum, amprenting the posterior gastric wall and left kidney hilum, highly suggestive for solid pseudopapillary tumour of the pancreas, confirmed by the EUS-FNA. We performed a distal splenopancreatectomy and the pathological report and immunohistochemical evaluation were positive for solid pseudopapillary tumour of the pancreas. Postoperative evolution was uneventful. There was no need of adjuvant treatment since the excision was complete. The patient is on regular follow-up. Although a rare pathologic entity, pseudopapillary neoplasm of the pancreas (Frantz tumour) should be considered if found in young women patients. Even though, it usually has good biological outcome, the standard of care in treating it often implies major pancreatic resections.

BIOGRAPHY

Diana Pescaru is a graduate of "Carol Davila" University of Medicine and Pharmacy in Romania. She is a third year trainee of the General Surgery Residency Program at the Central Military Emergency University Hospital after having completed her first two and a half years of residency at "Sfanta Maria" Surgery and Transplantation Clinic in Bucharest. In her time studying so far she has developed a huge interest in one of the most common causes of death worldwide – Cancer. Her surgical practice focuses on the Upper Gastrointestinal which heavily involves hepatobiliary and pancreatic surgery also including liver transplant procedures. She also has experience in other surgical oncology specialties such as Colorectal, Gynaecological and Breast. She has had several participations in National Congresses and Conferences including articles in various National Publications. At the beginning of her surgical career she aims to broaden her knowledge and skills by pursuing fellowships, congresses and other scientific seminars abroad.

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Iulian-Andrei Gilca et al., J Gastroenterol Dig Dis 2018, Volume 3

ANATOMICAL LIVER RESECTION FOR INITIALLY UNRESECTABLE GIANT HEPATOCELLULAR CARCINOMA IN ELDERLY PATIENT: A CASE REPORT

Iulian-Andrei Gilca, L Mosoia, D Pescaru Th Artenie, A Dima, C Mitru and V Dumitrascu

Central Military Emergency University Hospital, Roamania

Background: Hepatocellular carcinoma (HCC) is less common in non-cirrhotic livers. Resectability of the tumour, needs sufficient liver remnant and this process can be achieved mainly to increase the future liver remnants in patients through hypertrophy.

Materials & Methods: In this report, we present a 75 years old patient who came to our attention one month after the initial ultrasound with palpable hepatomegaly. The CT showed a hyper vascularized solitary liver lesion measuring 20/18 cm originated from right hepatic lobe, with small for size left hemi liver at volumetry. Laboratory data showed normal liver function and hepatitis B and C serologies were negative. Serum tumour markers including CEA, CA 12.5, CA 19.9 were within normal range while AFP was elevated, >500. Due to the insufficient future liver remnant, we performed right portal vein ligation (PVL) in the first instance, to convert the unresectable tumour to resectable for potential cure.

Results: We record the success of PVL with compensatory hypertrophy in the left liver, seen at seven weeks after PVL. The patient underwent planned laparotomy and right hepatectomy with uneventfully postoperative follow-up and discharge in day nine.

Conclusion: The case presented, indicates that surgical resection for giant HCC is possible in elderly patients, even if initially, the future liver remnant does not allow surgical therapy.

BIOGRAPHY

Iulian-Andrei Gilca is a surgical trainee in his third year of general surgery residency program in the First Department of Surgery at Central Military Emergency University Hospital Bucharest. He graduated from Carol Davila University of Medicine and Pharmacy in Bucharest, year of 2015. Since he started training to become a general surgeon, He was fascinated by the hepatobiliary, pancreatic surgery and oncologic surgery and focused on acquiring expertise in this fields. His current interests encompasses surgical conditions of the gastrointestinal tract with a main concern on liver transplant surgery.

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DAY 2

Special Session



Art O'Malley

Mascot Child and Family Services limited, UK

Biography

Art O'Malley has worked as a consultant child and adolescent Psychiatrist from 2004 and am accredited as an EMDR consultant from 2008. I have also trained in sensorimotor psychotherapy. I have been a member of the UK and Ireland EMDR Association since 2002 and was a member of the European Conference organizing committee for the London Conference and the Child and Adolescent Committee. I have presented at their AGMs in Glasgow, Manchester, Dublin and at the European conferences in Paris and London. I have presently widely in the fields of trauma, neglect and the developing brain, attachment disorders, personality disorders, emotional dysregulation in ADHD and ASD diagnosis and management. I first presented on this model at the ISSTD 28th Annual conference in Montreal November 2011. Recent articles on the clinical effectiveness of BART psychotherapy have been published to complement the book, The Art of BART which was published by Karnac books in London in 2015 and is available in print and as an eBook from Amazon and Routledge. The updated version of the book, "Sensorimotor Focused EMDR for Psychotherapy: A New Paradigm for Peak Performance" will soon be published by Taylor and Francis (Routledge).

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HOW THE GUT MICROBIOTA COMMUNICATES WITH THE CNS THROUGH NEURAL, ENDOCRINE AND IMMUNE PATHWAYS

The enteric nervous system (ENS) or gutbrain has 30 different neurotransmitters and ninety percent of the body's serotonin as well as fifty percent of its dopamine. It also has the gut microbiome and taste receptors which sense 'sweetness' on the tongue and levels of glucose in the bloodstream. These taste receptors regulate insulin and are a good example of how the ENS really acts as our gutbrain and is capable of independent action. The processing of the gut instinct or gut reaction to incidents is a prerequisite for sensorimotor focused eye movement desensitisation and reprocessing for psychotherapy and peak performance. This talk presents research by John F Cryan and Timothy G Dinan which shows how the gut microbiota communicates with the CNS through neural, endocrine and immune pathways. This provides scientific evidence for an influencing role in the regulation of anxiety, mood, cognition and pain. The microbiota are integrated into the illustrated gutbrain axis and impact on the brain in states from satiety to stress. A range of mechanisms have been proposed by which gut flora affect the CNS: altering composition of the gut flora- they can compete for dietary ingredients such as growth substrates, they can produce vitamins, reduce inflammation and stimulate innate immune responses. All these can change gut-brain signalling, Immune activation- the immune system interacts bidirectionally with the CNS. Also indirectly the gut flora affects the immune system altering cytokine levels. These are both pro and anti inflammatory and directly impact brain function, Vagus Nerve- as illustrated below this regulates bronchial constriction, heart rate and gut motility. About eighty percent of nerve fibres are sensory, conveying sensory information about the body organs to the CNS. Many of the effects of gut flora are dependent on vagal activity. The mechanisms of vagal afferent activation by gut microbionics have yet to be elucidated, Metabolism of tryptophan- this essential amino acid is a precursor of serotonin. This metabolic pathway becomes dysregulated in many brain and gastrointestinal tract disorders. Two key enzymes involved in the metabolism are activated by inflammatory mediators and corticosteroids, Microbial metabolites- Gut flora are essential in the production of bile acids, choline and short chain fatty acids. Complex carbohydrates are digested and fermented in the colon by gut microorganisms into neuroactive short chain fatty acids and Microbial neurometabolites- these neurotransmitters act on the enteric nervous system and may have anti-nociceptive properties. Bacterial cell wall sugars-these may

modulate neural signalling or act on afferent axons. Knowledge of all these mechanisms of interaction of the gut enteric nervous system on the central nervous system lends credence to my hypothesis that reprocessing of the gut's emotional response can help to reduce any dysregulation of the gastrointestinal system. Also continuing reprocessing of distressing sensations in relation to trauma at the level of the stomach can be signalled to the heart and brain via the vagus nerve. This will enable digestion and metabolism of these sensations at a cognitive level.





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DAY 2

Scientific Tracks & Abstracts

Day 2

SESSIONS

June 26, 2018

Clinical Nutrition in GI Disorders | Gastrointestinal Pharmacology | Digestive and Liver Diseases | Gastrointestinal Endoscopy | Neuro-Gastroenterology | Gastrointestinal Endoscopy | Hepatology

Session Introduction

Session Chair

Gramatiuk Svetlana
Ukraine Association of
Biobank, Ukraine

Session Co-chair

Domenico Macaluso
Ribera's Hospital
Italy

- Title: Spreading of a colon adenoma: a case report**
Domenico Macaluso, Ribera's Hospital, Italy
- Title: Comparative study of conventional scoring systems (CTP & MELD) with von willebrand factor in predicting prognosis in Cirrhosis of Liver**
Aditya V Kulkarni, Antrang Hospital of Gastroenterology and Hepatology, India
- Title: Is it useful to perform preoperative upper gi endoscopy in symptomatic gall stones?**
Ashfaq Hussain Chandio, Manchester Royal Infirmary, UK
- Title: Dietary nitrate and nitric oxide: what's gut to do with it?**
Conor P Kerley, Dublin Institute of Technology, Ireland
- Title: Sarcopenia is highly prevalent and associated with poorer outcomes in pancreatic and oesophago-gastric cancer: Systematic review and meta-analysis**
Donal O'Connor, Trinity College Dublin, Ireland
- Title: Recent advancements and therapeutic techniques in the field of gastroenterology /hepatocellular carcinoma (liver cancer), developing treatments for viral hepatitis and liver fibrosis**
Goodluck Fadoorn Innocent Obilor, University of California, USA

Gastro Congress 2018

SPREADING OF A COLON ADENOMA: A CASE REPORT

Domenico Macaluso¹, Italia F² and Bianciardi G³

¹Domenico Macaluso, Endoscopy Service, Ribera's Hospital, Agrigento, Italy

²Fabrizio Italia, Laboratory of Pathology "OncoPath", Augusta, Siracusa, Italy

³Giorgio Bianciardi, Department of Medical Biotechnologies, Pathologic Anatomy, Siena University, Italy

The capacity to spread beyond the limits of the tissue in which it was originated and to survive is the prerogative of malignant tumors, the feature at the basis of the concept of malignancy. In 90% of cases, a colon cancer originates from its dysplastic precursor, the adenomatous polyp; evidence that 60-70% of that cancer is localized in the distal colon suggests that environmental factors affect the progression of the tumor, like the activation of HIF-1 transcription factor and the physiological hypoxia that exists in this environment. Here we describe the finding of a clinical case where a benign tubulovillous adenoma appears able to survive and colonize the colonic mucosa away from the primary lesion. It was supported by visual inspection, histological evidence and fractal analysis (each tested morphometrical parameters- box dimension, information dimension, mass dimension, perimeter-area dimension, algorithmic complexity- overlapped each other, $p < 0.03$). If this finding will be confirmed in a high number of patients and by experimental studies, the current diagnostic/therapeutic approaches of the colon tumors should be modified, not only regarding colorectal adenomas, but also the superficial cancer of the large bowel. The mechanisms of spread of a malignant tumor in other tissues (metastasis) are well known since the previous century (bloodstream, lymphatic circulation, contiguity, via transcelomatic dissemination). It is a process affected by many factors, like as the ability to overcome hypoxia and to be provided with a vascular network. During a colonoscopy, two benign lesions (adenomas, one large vegetating proximal lesion and one small lesion, distally) were revealed in a patient, the position and the aspect at gross and microscopic level suggesting that the small lesion could be derived from the other. In this work we face a clinical case that may suggest the possibility of an adenomatous polyp, a benign tumor, to spread and colonize the colonic mucosa remotely, with mechanisms considered, so far, prerogative of a malignant tumor.

Case report: During a colonoscopy performed at the Ribera's Hospital Endoscopy Service (Provincial Health Institution of Agrigento, Sicily) in a 63-year-old male that came to our attention for a positive Fecal Occult Blood Test (FOBT). Colonoscopy (Pentax EPM-3000 colonoscope) demonstrated the presence of two eteroplastic lesions:

1. Near the cecum, the presence of a large vegetating lesion, dysplastic, lumpy but not ulcerated, with a short and thick peduncle; it invaded the intestinal lumen and occupied the entire whole of it.
2. Approximately 20 cm distal to the above lesion, a small eteroplastic lesion located just below the hepatic flexure, lying on a colonic haustra. The mass, approximately 3 mm in diameter, was anchored to the colon mucosa through thin threadlike structures, and in relation with blood capillaries.

The structure hadn't a vascular pole and at the detachment from the mucosa, the tumor appeared without a peduncle; capillaries, breaking away from the lumen of the colon, giving rise to a modest bleeding. It was not possible to proceed with endoscopic resection due to the high dimension of the first lesion, and it was decided to perform some biopsies for histological/histomorphometric evaluations. In the present study, we describe a clinical case where a benign adenoma appears able to survive and colonize the colonic mucosa away from the primary lesion. This was supported by visual inspection during colonoscopy (presence of a small mass, distally to a large vegetating lesion; it was without a peduncle, vascular axis and vascular pole, anchored to the colon mucosa through thin threadlike structures, and in relation with nest of capillaries), histological evidence (the same microstructure of a tubulovillous adenoma with low-grade epithelial dysplasia and notes of dyskaryosis) and fractal analysis (five fractal parameters, obtained by analyzing about 1500 microstructures for each lesion, perfectly overlapped between the lesions). The small distal adenoma appears to be the daughter of the large vegetating proximal lesion. The Warburg effect, known since 1956, is the ability of cancer cells to respond to

hypoxia, with an adaptation of their energy cycle. The colon mucosa is an anoxic environment, where a lot of different microaerophilic bacteria and archaeobacteria live. This could be a crucial step in the survival of that colonic neoplastic embolus, survival and adaptation being permitted by that anoxic environment. A key role should be played by the mitochondrial protein TRAP-1, with its ability to intervene on the transcription factor HIF-1 levels. In normoxic conditions, this mediator is degraded by hydroxylation, whereas in neoplastic tissues TRAP-1 stabilizes HIF-1. In effect, immune histochemical investigations have shown that in malignant tumors there are significant high levels of HIF-1 in comparison to healthy tissues and if a metastatic process is present, still higher HIF-1 levels are present. In this context, a kind of natural selection will favor the growth of the cellular clone adapted to the hypoxic stress. We can recall that HIF-1 is a potent stimulator mitogen, specific for endothelial cells; it produces changes of cellular metabolism, triggering the activation of glycolytic enzymes; leading angiogenesis and neovascularization, through vascular endothelial growth factor activation. Significant should be also the role of nitric oxide, involved in the tone regulation of the newly formed vessels. If our finding will be confirmed in a high number of patients, the current orientation to treat sessile adenomas of the colon by means of endoscopic sub-mucosal dissection must be revised. There is no doubt that early diagnosis of adenomatous polyps and their removal by endoscopic resection reduces the incidence of the colon carcinoma, but we must prevent the fragmentation of the polyp. Otherwise, the resection of the tumor could produce the primum movens of an iatrogenic spread of a colonic adenoma, due to the particular morphological characteristics of the colonic mucosa (folds, diverticula) and the presence of an anoxic environment. Even the slow intestinal transit, an increasing condition for the actual lifestyle, could help the engraftment of such adenomatous embolus. A dangerous situation for the patient, being the adenoma a benign lesion that can evolve in a malignant lesion. Moreover, it may be also true for a superficial colon cancer, if treated by resection or endoscopic dissection: the residual fragments could be able to colonize contiguous or distal areas resulting in repetitive carcinomas. Experimental studies might confirm our hypothesis. One should be carried out on cre-recombinase genetically modified mice, characterized by a higher incidence of tumors in the distal colon. The experimental procedure should be obtained by taking tumor fragments from a proximal area of the colon and implant them by contact in the most distal areas, and then analyze the survival, engraftment and development of the cell aggregates. Another experimental procedure could be performed dosing HIF-1 levels in humans, checking its values in comparison to the pO₂ levels and dysplasia degree in different parts of the colon."

BIOGRAPHY

Domenico Macaluso is a surgeon and an endoscopist. He graduated in Palermo (Sicily) and is responsible for Digestive Endoscopy of the Hospital Presidium of Ribera (Agrigento). He also has a qualification of Rescue Diver and has coordinated several underwater researches in the Mediterranean, in the hypoxic basins of the oceanic ditches. He compared the methanogenic bacterial flora of the hypoxic marine basins, with the methanogenic bacteria of the intestinal microbiota and he collaborates with the Department of Biotechnology of the University of Siena, on the study of the probable capacity of colon adenomas, to propagate at a distance, a phenomenon that is probably mediated by the physiological intraluminal hypoxic environment of the colon."

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COMPARATIVE STUDY OF CONVENTIONAL SCORING SYSTEMS (CTP & MELD) WITH VON WILLEBRAND FACTOR IN PREDICTING PROGNOSIS IN CIRRHOSIS OF LIVER

Aditya V Kulkarni and L Venkatkrishnan

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Aim: The aim of this study is to compare VWF to CTP and MELD scores to determine short term morbidity and mortality.

Methods: A prospective observational study enrolling 50 patients with cirrhosis of liver who were categorized according to CTP and MELD scores. VWF levels were detected. The levels of VWF were compared with the CTP and MELD scores in 50 cirrhotic patients. All patients were on 3month follow up to determine the complications.

Results: In comparison with CTP A, B, C, VWF was elevated in 3.4%, 34.5% and 62.1% respectively ($X^2=10.89$, $p<0.01$). In MELD score, 78.2% had high VWF levels ($X^2=7.17$, $p<0.01$). The mean value of overall complications in patients with high VWF was 1.48 ± 1.32 ($t= 2.19$, $p<0.05$), as compared to CTP and MELD scores which had a mean value of 0.8 ± 1.14 and 0.77 ± 1.05 respectively. In comparison of VWF levels with individual complications and mortality, spontaneous bacterial peritonitis(SBP) was seen in 27.6% in high VWF group compared to 4.8% in low VWF group ($X^2=4.299$, $p<0.05$). Hepatorenal syndrome(HRS)was present in 51.7% patients with high VWF group in comparison with 23.8% in low VWF group ($X^2=3.95$, $p<0.01$). Correlation of VWF levels was also done with the grade of varices. 4,23,20,3 patients had grade 0,1,2,3varices respectively, among which 6.9%,37.9%,48.3%and6.9% were in high VWF group ($X^2=2.35$, $p=0.502$). 9 patients had bleeding of which five patients had high VWF levels.

Conclusions: VWF was a better predictor of overall three months mortality. As for individual complications, VWF is better in predicting complications related to bacterial translocation (SBP, HRS) VWF levels did not correlate with grade of esophageal varices and fail to predict the risk of bleeding over three months in the study.

BIOGRAPHY

Aditya V Kulkarni is a Gastroenterologist, presently working as consultant in Antrang Hospital of Gastroenterology and Hepatology, Kolhapur. He has finished his Gastroenterology training in PSG Hospitals, Coimbatore, India. During his academic carrier he has worked on Von Willebrand Factor and its impact on liver disease. He also has presented posters in United European Gastroenterology week 2016 in Vienna and in International Liver Congress 2017, Amsterdam. He has publications in reputed journals like *Endoscopy and Annals of Hepatobiliary and Pancreatic surgery*. During His academic years he has also received awards for best poster and best oral presentation in state conferences.

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IS IT USEFUL TO PERFORM PREOPERATIVE UPPER GI ENDOSCOPY IN SYMPTOMATIC GALL STONES?

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Background: Symptomatic gallstones and inflammatory disorder of the gastro duodenum are common causes of upper abdominal pain. It's a great challenge to differentiate between gastrointestinal symptoms due to gall stones or any other causes. These gastrointestinal symptoms may be related to gallstones, but underlying correlation has not been established yet, which is extremely disappointing for the operating surgeon

Aim: To find out role of preoperative endoscopy in symptomatic gall stones

Methods: Prospective observational multicentre study of 382 patients undergoing Laparoscopic cholecystectomy from July 2014 to December 2015. All patients diagnosed with gallstones based on ultrasound abdomen, irrespective of age and sex. All patients were subjected to Upper Gastrointestinal Endoscopy 24 to 48 hours before cholecystectomy biopsy were obtained for histopathology if required. Those patients not keen for surgery, Pregnant ladies due to risk of foetal loss, CBD stone, obstructive jaundice, carcinoma of gall bladder, were excluded.

Results: During this period, 382 patients. The female to male ratio 4.78:1 (316 versus 66), and the mean patient age was 46.10±6.31 years (22 to 65 years). 146 (38.21%) Patients were present with typical pain and 236 (61.78%) atypical pain. Ultrasound revealed single stone in 83 (21.72%), multiple stones in 299 (78.27%), impacted stone at the neck of gallbladder was found in 68 (17.80%) patients, Thick wall gallbladder was seen in 221 (57.85%) patients and contracted gallbladder 44 (11.51%) patients. Pre-operative upper gastrointestinal endoscopy findings revealed Esophagitis in 22 (5.75%) cases, GERD in 26 (6.80%) cases, gastritis in 88 (23.03%), gastric ulcer 49 (12.82%), duodenal ulcer in 39 (10.20%), polyps 21(5.49%) and carcinoma of stomach 9 (2.35%). In all patients with typical pain complete relief of symptoms were observed within 15 days post- operatively. Out of 236(61.78%) cases with atypical pain had persistence of symptoms in 141 (59.74%) cases up to four months.

Conclusion: We conclude that upper gastrointestinal endoscopy should be performed preoperatively for gallstone disease to evaluate preoperatively atypical symptoms and patients is fully informed in addition treated for associated conditions.

BIOGRAPHY

Ashfaq Hussain Chandio is a surgeon specializing in general surgery. He is employed by the NHS Trust. He is graduated from Chandka Medical College Larkana in 1988. He has obtained his training in various specialities of general surgery (General Surgery, Urology, Emergency medicine, Vascular, Breast & Endocrine, and Colorectal) in Ireland and UK. He is awarded as FEBS/Coloproctology in 2018 by European Surgical (Coloproctology) Board. He has obtained comprehensive training in general surgery. He routinely performs general surgical operations in NHS hospital. He also actively participates in the teaching of medical students and junior doctors.

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DIETARY NITRATE AND NITRIC OXIDE: WHAT'S GUT TO DO WITH IT?

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Our group have demonstrated broad physiological benefit resulting from dietary nitrate ingestion among diverse clinical groups, including improved exercise tolerance and decreased blood pressure in hypertension, obstructive sleep apnoea, COPD, cardiomyopathy and cystic fibrosis. These effects are due to reduction of dietary nitrate to nitrite and nitric oxide (NO)¹⁻⁶. This reduction of nitrate to nitrite requires specific nitrate reductase enzymes, which are mainly commensal bacteria in the gastrointestinal tract, particularly the oral cavity. The resulting nitrite can be reduced to NO and this can occur spontaneously under acidic/hypoxic conditions (e.g. intragastrically). Controlled trials have demonstrated that disrupting dietary nitrate reduction to nitrite by use of either antibiotics⁷ or anti-bacterial mouth wash⁸⁻¹⁰ decreases or abolishes the biochemical effects and physiological effects of nitrate ingestion. Additional research has reported that increasing gastric pH through use of proton pump inhibitors (PPI) can decrease systemic NO elevations induced by nitrate ingestion by 95%¹¹⁻¹⁴. Further research has demonstrated that PPI use can decrease the hypotensive effect of nitrite¹⁵ and that antibacterial mouthwash use can increase blood pressure^{16,17}. There is a suggestion that dietary nitrate is a major, beneficial component of vegetables. Strong evidence suggests that disrupting the nitrate-nitrite-nitric oxide pathway via gastrointestinal tract modulation with antibiotics, mouthwash and/or PPI can attenuate some benefits of vegetable consumption. Clinicians should consider the potential detriments as well as the benefits before utilizing these agents.

BIOGRAPHY

Conor P Kerley, PhD, BSc, H. Dip is an Irish dietitian and nutrition researcher. Dr. Kerley developed an interest in nutrition and lifestyle after becoming ill at age 15. He then went on to study nutrition and dietetics at Trinity College Dublin and the Dublin Institute of Technology. It was during this time that he read The China Study and became interested in plant-based nutrition. After graduating, he earned his PhD from the School of Medicine and Medical Sciences at University College Dublin before completing postdoctoral work with The School of Human Health and Performance at Dublin City University. He is currently a content specialist with the Center for Nutrition Studies.

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Note:

SARCOPENIA IS HIGHLY PREVALENT AND ASSOCIATED WITH POORER OUTCOMES IN PANCREATIC AND OESOPHAGO-GASTRIC CANCER: SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Sarcopenia is a depletion of skeletal muscle mass associated with increased morbidity and mortality in gastrointestinal malignancy. It has been increasingly reported with the recent advent of software to measure sarcopenia using standard staging CT. Patients with pancreatic, oesophageal and gastric cancer are potentially at increased risk due to nutritional complications. The aim of this review was to determine the prevalence and impact of sarcopenia in these malignancies.

Methods: Systematic literature search of Medline and Embase databases was developed with a medical librarian and performed by two investigators following the PRISMA guidelines. (Search period 1990-August 2017). Studies were included for prevalence and method of sarcopenia measurement were reported. Other outcome measures included effect on morbidity and survival. Studies were grouped into pancreatic and oesophago-gastric for analysis. Pooled estimation(ES) for prevalence was computed using random effects model and presented with 95% CI.

Results: After screening 473 titles, 17 observational studies (4206 patients) in pancreatic and 30 studies (5561 patients) in oesophago-gastric were analyzed. Prevalence of sarcopenia was higher in pancreatic cancer (49.6%) compared to oesophago-gastric (34%) ES 0.49(0.39-0.59)v 0.34(0.27-0.4) There was significant heterogeneity regarding definition of sarcopenia and reporting of outcome measures. In studies with sufficient data, sarcopenia was independent of BMI and independently associated with poorer survival and higher post-operative complications.

Conclusion: Sarcopenia detected during staging CT was present in half and one third of patients with pancreatic and oesophago-gastric cancers respectively and is a poor prognostic indicator. This justifies further research into the mechanism and potential treatment.

BIOGRAPHY

Donal O'Connor is an Assistant Professor/Registrar, department of surgery in Trinity College Dublin. He has been nominated for provost teaching award 2017. His research interest lies in Pancreatitis Surgical outcomes Undergraduate education: teaching methods Assessment methods in post graduate surgical examinations.

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RECENT ADVANCEMENTS AND THERAPEUTIC TECHNIQUES IN THE FIELD OF GASTROENTEROLOGY / HEPATOCELLULAR CARCINOMA (LIVER CANCER), DEVELOPING TREATMENTS FOR VIRAL HEPATITIS AND LIVER FIBROSIS

Goodluck Fadoorn Innocent Obilor

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Chemical and Pharmaceutical the author has been very useful for capturing knowledge as in gastrointestinal diseases, hepatocellular carcinoma (liver cancer), chemical and pharmaceutical, a prime challenge has been taken to develop chemical and pharmaceutical function given only partial chemical and pharmaceutical knowledge and inconsistency in how this knowledge is curated by experts, again towards a data-driven gene ontology, clinical nutrition in gastrointestinal diseases, probiotics as gastrointestinal therapeutics, advancements and current research in gastrointestinal therapeutics, GI oncology, ontologies have been very useful for capturing knowledge as a hierarchy of concepts and their interrelationships. In biology, a prime challenge has been to develop ontologies of gene function given only partial biological knowledge and inconsistency in how this knowledge is curated by experts. The author will discuss how large networks of gene and protein interaction, as are being mapped systematically for many species, can be transformed to assemble an ontology with equivalent coverage and power to the manually-curated gene ontology (GO). Our network-extracted ontology contains 4,123 biological concepts.

BIOGRAPHY

Goodluck Fadoorn Innocent Obilor, PhD. is Professor of Medicine at the University of California at San Diego. He serves as Division Chief of Medical Genetics and Director of the National Resource for Network Biology, as well as being Adjunct Professor of Bioengineering and Computer Science and Member of the Moors UCSD Cancer Center. He received bachelor's and master's degrees from MIT in Chemical and Pharmaceutical Engineering his Ph.D. from the University of Washington in Molecular Biology under the supervision of Dr. Leroy Hood. He is a pioneer in assembling genome-scale measurements to construct Chemical and Pharmaceutical processes and disease. His recent research activities include assembly of networks governing the response to DNA damage; development of the Cystoscope and Network BLAST software packages for biological network visualization and cross-species network comparison; and methods for identifying network-based biomarkers in development and disease. Fadoorn serves on the Editorial Boards for Bioinformatics, Chemical and Pharmaceutical, is on the Scientific Advisory Boards of the Sanford-Burnham Medical Research Institute and the Institute for Systems Biology and is a regular consultant for companies such as Monsanto and Mendel Biotechnology. He was named one of the Top 10 Innovators of 2006 by Technology Review magazine and was the recipient of the 2009 Overton Prize from the International Society for Computational Biology. His work has been featured in news outlets such as The Scientist, the San Diego Union Tribune, Forbes magazine and the New York Times.

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