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Irish Society of Gastroenterology

Winter Meeting

2-3 December 2021





Welcome Message

A Chairde,

While I am disappointed we are not meeting in person, it is still my great pleasure to welcome you all to the Winter Virtual ISG meeting 2021. Planning for what ifs and maybes, and responding to ever-changing public health advice has been a significant challenge. The last few months has required great flexibility and hard work. I would like to thank Michael and Cora, the staff at the Grand Hotel and our AV Partners for adapting and making any meeting a reality.

Despite tightening restrictions and a disappointing Covid-19 environment we can look forward over the next 2 days to an interactive and full educational programme. I am delighted to welcome a fantastic international and local faculty and would like to sincerely thank them for their continued commitment to ISG despite multiple iterations of the meeting over the last year. Their expertise and support provides for an exciting programme covering the broad themes of IBD and Cancer, Nutrition in Gastroenterology and Infection and Gastroenterology.

The format for “oral” presentations has been changed slightly this year, with the top scoring basic science and clinical abstracts being presented in separate sessions. This division recognises the hard work of both clinical academics as well as academic clinicians and scientists and the benefit of mutual understanding and collaboration. The format for posters was also changed this year, both as a way to future proof the meeting against any worsening of restrictions, which now appears insightful and with a view to improving our “Green” credentials. Instead of traditional, poster stands parallel themed e-poster sessions were developed which can now be delivered virtually, with short live presentations and the opportunity for significant interaction and Q and A with each presenter. As a novel entity, it could of course go terribly wrong, but with your understanding, help and participation, I’m sure we can make a success of it.

Finally, it is my honour to thank Tony Tham for his excellent work as ISG President during our most difficult period to date. His skilful management of events, his introduction of virtual meetings and webinars, kept the show on the road and allowed us to maintain an educational platform. The only pity is that he was denied the send-off we would like to and would traditionally have given him. I am sure I speak for us all when I offer him our sincerest thanks. I also want to congratulate Tony on his new appointment as President of the Ulster Society of Gastroenterology. Such an opportunity cannot go amiss and I look forward to fruitful future collaborations. (Yes that is a hint!)

Professor Deirdre Mc Namara

President, Irish Society of Gastroenterology

Consultant Gastroenterologist

Tallaght Hospital, Dublin

Irish Society of Gastroenterology Winter Meeting

Grand Hotel, Malahide, 2nd & 3rd December 2021

Programme

Day 1 Thursday 2nd December

- 08.00-09.00 **E-poster Sessions: Endoscopy and IBD**
 Chairs:
 Endoscopy: **Prof. Deirdre McNamara**, TUH
Dr Gareth Horgan, St Vincent's University Hospital
 IBD: **Prof. Colm O'Morain**, TCD
Dr Tony Tham, Ulster Hospital, Belfast
Room A. Endoscopy / Room B. IBD
- 09.00-09.15 **Industry Videos**
- 09.15-11.30 **Symposium 1- IBD and Cancer**
 Chairs: **Dr Aoibhlinn O'Toole**, Beaumont Hospital,
Prof. Colm O'Morain, TCD
- 09.15-09.45 **IBD and Cancer an approach to management**
Prof. Sebastian Shaji, Consultant Gastroenterologist,
 Hull University Teaching Hospital
- 09.45-10.15 **Skin cancer and IBD**
Prof. Anne Marie Tobin, Consultant Dermatologist,
 Tallaght University Hospital
- 10.15-10.45 **Cancer Therapy and Colitis**
Dr Nick Powell, Consultant Gastroenterologist &
 Clinical Reader in Gastroenterology Imperial College London
- 10.45-11.15 **Inflammatory bowel disease and colorectal cancer - a clinical perspective**
Mr James O'Riordan, Consultant Colorectal Surgeon,
 Tallaght University Hospital
- 11.15-11.30 **Panel Discussion**
- 11.30-12.00 **Coffee / Industry Videos**
- 12.00-13.00 **Best Clinical Abstract Sessions**
 Chairs: **Prof. Anthony O'Connor**, Tallaght University Hospital
Dr Karen Boland, Beaumont Hospital
- 13.00-14.00 **Lunch / Industry Videos**

Day 1 Thursday 2nd December Afternoon

- 14.00-16.15 **Symposium 2 - Nutrition & Gastroenterology**
 Chairs **Prof. Valerie Byrne**, University College Hospital Galway
Dr Zita Galvin, St Vincent's University Hospital
- 14.00-14.30 **Nutrition in IBD**
Dr Lisa Sharkey, Consultant Gastroenterologist,
 Addenbrooks Hospital, Cambridge
- 14.30-15.00 **Intestinal failure identification and management, Ireland.**
Dr Cara Dunne, Consultant Gastroenterologist,
 St James's Hospital & Crumlin Hospital
- 15.00-15.30 **Keeping nutrition at the core of patient care**
Dr Alastair McKinlay Consultant Gastroenterologist,
 President British Society of Gastroenterology
 Aberdeen Royal Infirmary

15.30-16.00	Nutrition in Liver disease & TPN induced liver damage Dr Johane Allard , Professor of Medicine, University of Toronto, Canada
16:00-16:15	Panel Discussion
16.15-16.30	Posters Awards Ceremony
16.30-17.30	ISG Annual General Meeting

Day 2 Friday 3rd December

08.00-09.00	E-poster Sessions: Hepatology and Small Bowel/Nutrition/Misc. Chairs: Hepatology: Dr Geraldine McCormack , Midlands Regional Hospital, Tullamore Dr Vikrant Parihar , Letterkenny University Hospital Small Bowel/ Nutrition/ Dr Syafiq Ismail , Cavan and Monaghan Hospital Misc.: Dr Orlaith Kelly Connolly Hospital Blanchardstown Room A. Hepatology/Room B. Small Bowel/Nutrition/Misc.
09.00-09.15	Industry Videos
09.15-10.00	Session 1. Clinical Advisory Group & Endoscopy Programmes Chairs: Dr Murat Kirca , Regional Hospital Mullingar Prof. Deirdre McNamara , TUH
09.15-09.30	Clinical Advisory Group Update Prof. Colm O'Morain , National Lead Clinical Programme for Gastroenterology & Emeritus Professor of Medicine, Trinity College Dublin
09.30-09.45	Endoscopy Programme Update Dr Jan Leyden , National Endoscopy Lead & Consultant Gastroenterologist, Mater Misericordiae University Hospital
09.45-10.00	Panel Discussion
10.00-11.00	Best Scientific Abstract Sessions Chairs: Dr Sinead Smith , Trinity College Dublin Prof. David Kevans , St James's Hospital
11.00-11.30	Coffee / Industry Videos
11.30-13.45	Symposium 3- Infection & Gastroenterology Chairs: Dr Geraldine McCormack , Midlands Regional Hospital, Tullamore Dr Omar El-Sherif , St Vincent's University Hospital
11.30-12.00	C. difficile infection treatment – recent guideline changes Prof. Mark Wilcox , Professor of Medical Microbiology Leeds University
12.00-12.30	European Registry on H. pylori management: most relevant results for clinical practice Prof. Javier Gisbert , Consultant Gastroenterologist, La Princesa University Hospital, Madrid
12.30-13.00	Hepatitis E and others Prof. Heiner Wedemeyer , Professor of Gastroenterology, University Hospital Essen & Hannover Medical School
13.00-13.30	Infection and Inflammatory Bowel Disease Dr Sarah O'Donnell , Consultant Gastroenterologist, Tallaght University Hospital
13.30-13.45	Panel discussion
13.45	Best Abstract Awards Ceremony and Meeting Close

Biographical Sketches

Prof. Sebastian Shaji

Consultant Gastroenterologist
Hull University Teaching Hospital



Professor Sebastian (Seb) is the lead clinician at the IBD unit in Hull University teaching Hospitals, Hull. He leads an integrated IBD Unit (IBD HULL) of clinical and research staff, which prides in personalised care models for IBD patients. IBD Hull has gained recognition as one of the most research active IBD units in the UK and collaborates in several multicentre national and international IBD studies. He is chief investigator in 7 ongoing multicentre studies including 2 pan European studies. The current research areas include pharmacogenomics, Transcriptomics in treatment response, novel risk prediction in acute severe colitis, multimodal approach to perianal Crohn's disease, Inception cohort studies, pharmaco-epidemiology. He has over 300 peer-reviewed publications focussing on IBD (H-index 40). He was awarded the NIHR Royal College of Physicians research award for outstanding contribution to research in 2016 and National BAME researcher of the year award in 2019. He has been co-author for a number of European Colitis and Crohn's Organisation (ECCO) guidelines and workshops in various aspects of IBD. Seb is the upcoming chair of CLINICOM and member of CONFER Task Force committees of ECCO, Co-leads the Y&H NIHR LCRN gastroenterology speciality. Nationally, he is the chair of the BSG research committee and exec committee member, current member of IBD CRG, International committee, lead of the IBD subgroup of BSG AI task force and past chair of the adolescent Section of British Society of Gastroenterology.

Prof. Anne Marie Tobin

Consultant Dermatologist
Tallaght University Hospital



Prof Anne Marie Tobin is a Consultant Dermatologists in Tallaght University Hospital with an interest in inflammatory skin disease and early detection and prevention of skin cancer. She is Vice Chair of the National Cancer Control Programme Skin Cancer Leads Group and member of the National Skin Cancer Prevention Implementation Group.

Dr Nick Powell

Consultant Gastroenterologist &
Clinical Reader in Gastroenterology Imperial
College London



Dr Nick Powell is a Reader in Gastroenterology in the Faculty of Medicine at Imperial College and an honorary consultant at Imperial College Healthcare Trust. He completed clinical training in North West London in 2014, and has previously been awarded an MSc (Imperial College London), King's College London), an Intermediate Clinical Fellowship (Wellcome Trust).

The Powell lab (<https://www.powelllab.com>) is based in the Division of Digestive Diseases, Faculty of Medicine at Imperial College London, a world leading University in the heart of London. The Faculty of Medicine (<https://www.imperial.ac.uk/medicine>) has over 2,500 members of staff and according to the Times Higher Education (THE) World University Rankings, Imperial College was ranked 4th in the world for Clinical, Pre-clinical and Health research for 2020. The medical school dates

back to 1823.

His work focusses on the molecular and cellular regulation of intestinal inflammation, mucosal immunology, precision medicine and immune-checkpoint inhibitor induced colitis. We also harness multi-omic platforms, particularly transcriptomics and metabolomics to decode the molecular interactions between the bacterial communities that colonize the gut and the mucosal immune system. This research primarily focuses on inflammatory bowel disease (IBD) and intestinal inflammation developing in cancer patients treated with immune checkpoint inhibitors. We have made important contributions to the understanding of innate lymphoid cells and mononuclear phagocytes in IBD (Powell Immunity 2012, Powell Gastroenterology 2015, Powell Gut 2020, Goldberg Nature Reviews in Gastroenterology and Hepatology 2015).

Dr Powell recently chaired the British Society of Gastroenterology endorsed guidance on the management of immune-checkpoint inhibitor induced colitis (Powell Lancet Gastroenterology & Hepatology 2021), and the British Society of Gastroenterology Inflammatory Bowel Disease section and IBD Clinical Research Group position statement on SARS-CoV2 Vaccination (Alexander Lancet Gastroenterology & Hepatology 2021). He is a member of the Scientific Advisory Group member (oncology) for the European Medicines Agency and a member of several international Clinical Trial Steering Committees for IBD studies (including IM011023, IM011024, IM011127). Dr Powell is enthusiastically engaged with training the next generation of clinical and basic science academics. He is the Integrated Academic Training lead for Gastroenterology at Imperial, and is British Society of Gastroenterology Research Champion.

Dr Powell is a panel member of the Medical Research Awards for Crohn's and Colitis UK and has served as a peer reviewer for major grant awarding bodies, including The Wellcome Trust (Intermediate Fellowship and Sir Henry Dale Fellowship streams), Medical Research Council (New Investigator awards, Clinical Research Training Fellowship), The Broad Medical Research programme at Crohn's and Colitis Foundation in America (programme grants), European Crohn's and Colitis Organisation (programme grants), Crohn's in Childhood Research Association (programme grants). He is a peer reviewer for numerous journals, including Nature Medicine, Nature Communications, Gut, Mucosal Immunology, Journal of Crohn's and Colitis, British Journal of Cancer, Alimentary Pharmacology & Therapeutics, Scientific Reports, Clinical & Experimental Immunology, etc).

Mr James O'Riordan

Consultant Colorectal Surgeon
Tallaght University Hospital



James O' Riordan MD FRCSI graduated from Trinity College Dublin in 1998 with an honours degree. He completed basic surgical training scheme in Ireland and was awarded Membership of the Royal College of Surgeons in Ireland in 2001. He then undertook a research degree and was awarded the Degree of Doctor in Medicine from Trinity College Dublin in 2004. He then commenced higher surgical training in Ireland, was awarded the Intercollegiate Specialty Exam in General Surgery in 2008 and completed an international colorectal fellowship at the University of Toronto in 2011. He has been working as a consultant colorectal and general surgeon in Tallaght University Hospital and St James' Hospital since 2011. His subspecialist interests include laparoscopic surgery, proctology, colorectal cancer and inflammatory bowel disease. He currently has 47 peer reviewed publications in general and colorectal surgery.

Dr Lisa Sharkey

Consultant Gastroenterologist
Addenbrooks Hospital, Cambridge.



I am a Gastroenterologist and Transplant Physician with special interests in clinical nutrition, intestinal failure and Intestinal/Multivisceral transplantation. I have been part of the IF and transplant programmes in Cambridge since 2013 during which time over 80 transplants have taken place and we are currently one of the most active centres in the world. The department also cares for 120-150 HPN patients and has a complex enteral feeding service. My research interests include Intestinal Failure Associated Liver Disease, graft function and nutritional outcomes following transplantation. I regularly teach and lecture on clinical nutrition, nutrition support and intestinal failure and transplant and I am the nutrition representative of the British Society of Gastroenterology Training committee. I am a member by invitation of the NNedPro Global Centre for Nutrition and Health and recently elected to the Intestinal Rehabilitation and Transplant Association council.

Dr Cara Dunne

Consultant Gastroenterologist,
St James's Hospital & Crumlin Hospital



Dr Cara Dunne graduated with an honors degree in Biochemistry from UCD in 1996 and went on to study medicine in the Royal College of Surgeons in Ireland and graduated with honors in 2004. She did her early training in Beaumont hospital and through the gastroenterology Spr training scheme went on to work in Beaumont, St Vincent's, St James's and the Mater. She was awarded her PhD by NUI in 2013 and completed her gastroenterology training in Ireland followed by an advanced IBD and Intestinal Failure fellowship at Cambridge University Hospital Addenbrookes. In 2019 she was jointed appointed to work as a consultant gastroenterologist at St James's and at Children's Health Ireland Crumlin and she is involved in the transition of adolescent and young people with chronic gastrointestinal disorders especially IBD and Intestinal Failure. Her research interests are inflammatory bowel disease and complex nutrition.

Dr Alastair McKinlay

Consultant Gastroenterologist
President British Society of Gastroenterology.
Aberdeen Royal Infirmary



Dr Alastair McKinlay is the President of the BSG. He was appointed President-Elect in 2018 and he became President in June 2020 and will serve for 2 years until June 2022. As President he chairs the Board of Trustees, the Executive, and Council. He is a member of the Council of the Royal College of Physicians of London.

Dr McKinlay is a Consultant Gastroenterologist with an interest in nutrition, at Aberdeen Royal Infirmary. He is also physician to the Eden Unit at Royal Cornhill Hospital Aberdeen, the specialist inpatient eating disorders unit for the North of Scotland Managed Clinical Network for Eating Disorders.

His interests include complex enteral tube feeding, intestinal failure, the medical management of eating disorders, and functional GI disease. He was the 2019 Pennington Lecturer at

BAPEN's annual conference and is an Honorary Associate of the British Dietetic Association.

Dr Johane Allard

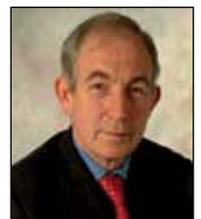
Professor of Medicine
University of Toronto, Canada



Dr. Johane P. Allard is a gastroenterologist at the Toronto General Hospital (TGH) and Professor of Medicine at the University of Toronto. She is crossed-appointed to the Department of Nutritional Sciences, the Institute of Medical Sciences and a member of the School of Graduate Studies at the University of Toronto. She is a Senior Scientist at the TGH Research Institute. Her research focus on nutrition and gastrointestinal disorders related to malnutrition, nutrition support, non-alcoholic fatty liver disease (NAFLD), obesity and bariatric surgery. She has a research program on intestinal microbiome related to NAFLD, metabolic syndrome, bariatric surgery and fecal transplantation. She has over 150 scientific publications in peer-reviewed journals. Dr. Allard is the Director of the Nutrition Program at TGH. She was the Director of Gastroenterology (2006-2018) at the University of Toronto, the vice-chair then chair, of the Royal College of Physician and Surgeon Examining Board in Gastroenterology (2008-2012), the Division Head at Sunnybrook Health Sciences Center (2009-2014) and the first president of the Canadian Society of Clinical Nutrition now called Canadian Nutrition Society. Dr Allard is a Fellow of the American Gastroenterology Association and Canadian Association of Gastroenterology, the recipient of the Ontario Gastroenterology Association Award 2019 for outstanding contribution to education, research and clinical practice and the recipient of the American College of Gastroenterology Senior Scientist Bridging Award 2021.

Prof. Colm O'Morain

National Lead Clinical Programme for
Gastroenterology & Emmeritus Professor of
Medicine, Trinity College Dublin



Professor Colm O'Morain has been appointed by the Health Service Executive and the Royal College of Physicians in Ireland as the National Clinical Lead in Gastroenterology and Hepatology. Professor Colm O'Morain graduated from University College Dublin and received his post-graduate training in Dublin, Nice, London and New York.

He is immediate past President of the BioMedical Alliance for Health Research in Europe representing 28 major European Scientific societies of which serve the interest of 300,000 medical scientists.

He is the past President of United European Gastroenterology from 2011 to 2013.

He is the President of the Bockus International Society of Gastroenterology.

He was the foundation Professor of Medicine at Tallaght Hospital, Trinity College Dublin. He was elected Dean of the Faculty of Health Sciences at Trinity College from 2007 – 2012.

He has held many positions of authority in National, European and World Organisations most notably President of the Irish Society of Gastroenterology between 2000 – 2004, President of the European National Societies of Gastroenterology 1997 – 2000.

He was the President of the European Helicobacter Study of

which he is a founder member. He is the Irish representative on the European Crohn's and Colitis Organisation.

He is a patron of the European Federation of Crohn's Colitis Association. He is a founder member of the European Board of Gastroenterology.

He is a co-author of the European Guidelines for Colorectal Cancer Screening and an advisor to the National Cancer Screening Service in Ireland.

He was awarded a D.Sc from the University of London for his published work and a D.Sc from the University of Athens for his contribution to Gastroenterology.

He is a fellow of The Royal College of Physicians in Ireland, the London College of Physicians and of Trinity College Dublin.

He is an elected member of the Royal Irish Academy of Ireland. He has been awarded the Max Suirala Medal by the Finnish Society of Gastroenterology and was made an honorary member of the Belgian Society of Gastroenterology and of the Hungarian Society of Gastroenterology and an Orator of the Malaysian Society of Gastroenterology. He was awarded the Felix Burda prize for his efforts to promote colorectal cancer in Europe.

He has published over 300 peer reviewed articles and co-authored six books.

Dr Jan Leyden

National Endoscopy Lead & Consultant Gastroenterologist, Mater Misericordiae University Hospital



Dr Leyden graduated from University College Dublin in 1998 and completed the RCPI Higher Specialist Training Programme in Gastroenterology and General Internal Medicine in 2008, followed by an Advanced Endoscopy Fellowship in Beth Israel Deaconess Medical Center, Boston. He is a Consultant Gastroenterologist in the Mater Misericordiae University Hospital and an Associate Clinical Professor in the School of Medicine, University College Dublin. He held the post of RCPI Gastroenterology National Specialty Director from 2015-2019. Dr Leyden is Clinical Lead for the HSE Endoscopy Programme and Chair of the Endoscopy Quality Improvement Programme Working Group.

Prof. Mark Wilcox

Professor of Medial Microbiology Leeds University



Professor Wilcox is a Consultant / Head of Microbiology Research & Development / and Infection Lead of the Leeds NIHR Diagnostic Technologies Medical Technology and In Vitro Diagnostic Co-operative at Leeds Teaching Hospitals NHS Trust; Professor of Medical Microbiology, Sir Edward Brotherton Chair of Bacteriology, at the University of Leeds; Lead on *C. difficile* infection for Public Health England; & National Clinical Director, Antimicrobial Resistance & Infection Prevention and Control for NHS England.

He has formerly been the Director of Infection Prevention (4 years), Infection Control Doctor (8 years), Clinical Director of Pathology (6 years) and Head of Microbiology (15 years) at LTHT.

Since the pandemic, Professor Wilcox has been a member of UK Scientific Advisory Group on Emergencies (SAGE, COVID-19; and chairs one of its subgroups on Nosocomial Infection). He is co-chair of DHSC's UK Technical Validation Group for COVID-19

tests, and is the clinical lead for winter virus multiplexing. He is a member of the Scientific Advisory Board for the EU Innovative Medicines Initiative's COMBACTE-NET consortium. From 2017, he was seconded one day per week to NHS Improvement to support the delivery of the new national target to reduce healthcare associated Gram-negative blood stream infections in England. He was the Deputy Chair of the UK Department of Health's Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) Committee up until 2018; he became an invited expert/observer to this committee from 2021-.

He is an expert advisor to the Department of Health in England on healthcare associated infections (HCAs), UK NICE (*C. difficile* management and antimicrobial evaluations project), the UK EPIC/NICE projects, the Health Technology Assessment (HTA) programme on Healthcare Associated Infection, the Wellcome Trust and CARB-X panel on novel antimicrobials, and the European Centre for Disease Control. He is a member of UK, European and US working groups on *C. difficile* infection, and is on the Editorial Boards of Clinical Infectious Diseases, Journal of Hospital Infection and Infectious Diseases in Clinical Practice. He has provided clinical advice as part of the FDA/EMA submissions for the approval of several novel antimicrobial agents, 1998-2020.

Professor Wilcox heads a Healthcare Associated Infection research team at the University of Leeds (<https://medicinehealth.leeds.ac.uk/faculty-/dir-record/research-groups/905/healthcare-associated-infection-research-group>), comprising ~30 doctors, scientists and nurses; projects include multiple aspects of *Clostridium difficile* infection, diagnostics, antibiotic resistance and the gut microbiome, staphylococcal infection, and the clinical development of new antimicrobial agents. He has a track record of translational research (<https://medicinehealth.leeds.ac.uk/medicine/staff/3541/professor-mark-wilcox>), including providing the basis of clinical advice to the NHS. He has been the Principal/UK Investigator for 15 clinical trials of new anti-infective drugs, 1999-2021, has carried out multiple NIHR portfolio studies on healthcare associated infection topics. He has authored >560 papers and published a number of books and chapters. He is co-editor of Antimicrobial Chemotherapy (5th/6th/7th Eds, 2007/12/15).

Prof. Javier Gisbert

Consultant Gastroenterologist La Princesa University Hospital, Madrid



As specialist in Gastroenterology at Hospital Universitario de La Princesa in Madrid, I maintain an intense clinical, teaching, research and management activity, which has made me an internationally renowned physician. For all that, I have been elected as one of the 10 doctors with the best health reputation in my speciality in Spain.

In my clinical facet, I am the Head of Inflammatory Bowel Disease Unit, a national and international Reference Center, being the first Unit in Spain to receive the quality certification of Spanish Working Group of Crohn's Disease and Ulcerative Colitis (GETECCU).

Concerning teaching, I am Tenure Professor at the Universidad Autónoma de Madrid (UAM) (I am also accredited as a University Chaired Professor), and Professor of the General Directorate of Planning, Research and Training (Ministry of Health, Madrid Autonomous Community). I have directed 20 Doctoral Theses and I am currently leading 7 more. In addition, I have obtained funding for the incorporation of research personnel in training (Sara Borrell, Río Hortega, P-FIS, young researchers,

attracting talent, etc.). As my research work, I am director of an autonomous line of research at the Institute for Health Research of Hospital de La Princesa (IIS-IP) and Principal Investigator of an interdisciplinary CIBER group (Center for Biomedical Research Network) of Liver and Digestive Diseases. I have participated as principal investigator or coordinator/advisor in more than 250 research projects. I have been the beneficiary of more than 40 competitive research projects financed by several national and international organizations. The funding I have obtained in public competitive calls in the last 5 years has been higher than 3 million euros.

I have published over 1,000 articles in scientific journals and over 100 book chapters. Also, I have published more than 1,600 conference abstracts in conferences. Bibliometric indicators (Web of Science): number of publications = 1,582; number of citations received = 32,176; cumulative impact factor = >5,000, h-index = 106 (Google Scholar). First in Spanish ranking of Gastroenterology by year of publication.

I have been a speaker in more than 200 national and international courses or conferences. I have coordinated several Consensus Conferences and Clinical Practice Guidelines. I have been evaluator/reviewer of projects in more than 25 scientific bodies, and I have acted as reviewer of Gastroenterology manuscripts from more than 300 journals. I am or have been responsible for the Innovation Unit and member of Research Committee and the Biological Therapies Unit at Hospital de La Princesa, and I have been Director of the Sponsorship of Teaching and Research in Inflammatory Bowel Disease at UAM.

My scientific production has had a high impact on international Gastroenterology, so I have been chosen as a member of the research committee of the European Crohn's and Colitis Organisation (ECCO), the European Helicobacter and Microbiota Study Group (EHMSG) and responsible for the research area of GETECCU, having been President of these last two entities. Finally, I am a member of the Council/Editorial Committee of 15 scientific journals, as well as International Editor of the Cochrane Collaboration and advisor of the International Agency for Research on Cancer (IARC, World Health Organization).

Prof. Heiner Wedemeyer

Professor of Gastroenterology
University Hospital Essen & Hannover
Medical School



Heiner Wedemeyer is Head of the Department of Gastroenterology, Hepatology and Endocrinology at Hannover Medical School (MHH) since April 1, 2020. He received his medical degree from the University of Göttingen in 1996 and subsequently started his training in Internal Medicine at Hannover Medical School in Germany. Afterwards he was a research fellow at the National Institute of Health, Bethesda, USA. He completed his training in Internal Medicine and Gastroenterology at MHH. Heiner Wedemeyer is member of several scientific organizations and was Secretary General of the European Association for the Study of the Liver from 2009 to 2011.

Dr Sarah O'Donnell

Consultant Gastroenterologist
Tallaght University Hospital



Dr Sarah O'Donnell has a specialist interest in Inflammatory bowel disease having done a 2 year advanced fellowship in IBD at the University of Toronto 2013 – 2015. She then went on to work as a consultant at The Royal London Hospital, Bartshealth Trust, forming part of a large specialist IBD service in central London. She was clinical lead for the gastroenterology service for the later part of her time at the Royal London. She returned to Ireland in early 2020 to take up a post as consultant Gastroenterologist at Tallaght University Hospital. Her interests in IBD lie particularly in pregnancy and peri-conception management of IBD, markers of Crohn's disease progression and therapeutic drug monitoring. She has multiple publications in peer reviewed journals within these areas of interest. Dr O'Donnell additionally is interested in GI bleeding and oesophageal disorders.

ISG Board Members

Professor Deirdre McNamara

President ISG
Consultant Gastroenterologist
Tallaght Hospital, Dublin



Deirdre is a graduate of Trinity College Dublin and completed Higher Specialist Training in Gastroenterology in Ireland before travelling abroad to complete periods of training in Interventional Endoscopy in Magdeburg, Germany and Cancer Prevention at the National Institute of Health, USA.

Deirdre was appointed to her first substantive post as a Luminal Interventional Gastroenterologist at Aberdeen Royal Infirmary in 2004. During her time in Aberdeen, she developed additional interests in minimally invasive capsule endoscopy and device assisted enteroscopy.

Deirdre returned to Trinity College and Tallaght Hospital as an Associate Professor of Medicine in 2010. She is Co-Founder and Director of the TAGG Research Centre (Trinity Academic Gastroenterology Group) and was Head of the Department for Clinical Medicine from 2012-2015. Clinically, she helped develop Tallaght's reputation as a centre of excellence for both Device Assisted Endoscopy and Capsule Endoscopy. In her spare time, Deirdre can usually be found in wellies outdoors, as a dedicated gardener, rider and dog owner.

Dr Garret Cullen

Hon Secretary ISG
Consultant Gastroenterologist
St Vincent's University Hospital, Dublin



Dr Garret Cullen is a Consultant Gastroenterologist at St. Vincent's University Hospital and an Associate Clinical Professor at University College Dublin. He is the Clinical Lead for Endoscopy in Ireland East Healthcare Group. His main clinical interests are inflammatory bowel disease and therapeutic endoscopy.

Dr Manus Moloney

Hon Treasurer ISG,
Consultant Gastroenterologist
University of Limerick Hospital



Dr Manus Moloney graduated in 1987 from Trinity College Dublin, trained in gastroenterology at the Mater and St James Hospital Dublin before moving to the Liver unit at King's College Hospital in London, training in hepatology and completing an MD thesis on Immunogenetics of Primary Sclerosing Cholangitis. Completed training at Ashford Hospital in Kent and Guy's Hospital. Dr Moloney returned to Ireland in 2000 to take up a Consultant post at Nenagh Hospital and Limerick Regional Hospital, now the University of Limerick Hospital Group. Dr Moloney is currently serving as endoscopy lead for the group, main interests include management of Inflammatory Bowel Disease and interventional endoscopy.

Dr Tony C.K. Tham

Consultant Gastroenterologist
Ulster Hospital, Dundonald, Belfast



Dr Tham qualified from the Queen's University of Belfast's medical school. He trained as a gastroenterologist and physician in the Northern Ireland training program. He completed his training as an Advanced Gastroenterology Fellow in the Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA.

He is a Consultant Physician and Gastroenterologist in the Ulster Hospital, Dundonald, Belfast. He is the President of the Ulster Society of Gastroenterology. He is a Past President of the Irish Society of Gastroenterology. He is the chair of Ireland's National Clinical Program for Gastroenterology and Hepatology Clinical Advisory Group. He was the Chair of the British Society of Gastroenterology Clinical Services and Standards Committee and formerly the Society's quality improvement and guidelines lead.

He has more than 80 publications in peer reviewed journals. He is the first author of a book entitled "Gastrointestinal Emergencies" which has been published as a 3rd edition and translated into Polish and Chinese. He has contributed to several other book chapters. He has been co-author of guidelines on ERCP, lower gastrointestinal bleeding, Barretts oesophagus, perianal Crohns, non medical endoscopy workforce and UK gastroenterology services. He was the Guidelines Editor for Gut. He is on the International Editorial Board of the journal Gastrointestinal Endoscopy; Associate Editor of the World Journal of Gastrointestinal Endoscopy; Diagnostic and Therapeutic Endoscopy. He has received several awards for being a top reviewer for Gastrointestinal Endoscopy.

He was the Head of the School of Medicine, Northern Ireland Medical and Dental Training Agency (deanery). He is the Vice Chair of the Specialist Advisory Committee for general internal medicine at the Joint Royal Colleges of Physicians Training Board and Training Program Director in General Internal Medicine in Northern Ireland. He is an examiner for the Royal College of Physicians of Edinburgh and also Queen's University.

He has led service improvements for patients in Northern Ireland including those with gastrointestinal consequences in pelvic radiation disease, and inflammatory bowel disease.

Dr Patrick Allen

Consultant Gastroenterologist
South East Trust, Belfast



Dr Patrick Allen is a Consultant Gastroenterologist working in the South East Trust. He graduated from Queen's University of Belfast in 2002. He completed his training in NI and completed a fellowship in St Vincent's Hospital, Melbourne in Endoscopy and IBD. He has been Secretary for the Ulster Society of Gastroenterology from 2012 to 2017 and was on the organising committee for BIG Meeting 2013 and 2017. He is a BSG IBD committee member and is the BSG Four Nations Chair. His main interests are IBD and Endoscopy.

Prof. Glen Doherty,

Consultant Gastroenterologist
St. Vincent's Hospital, Dublin



Glen grew up in Northern Ireland and graduated in Medicine at Trinity College Dublin in 1998. He was awarded his PhD by NUI in 2006 and completed his gastroenterology training in Ireland followed by an advanced IBD fellowship at Beth Israel Deaconess Medical Center and Harvard Medical School, Boston. Since 2010 he has worked as a consultant gastroenterologist at St Vincent's University Hospital in Dublin and as a senior clinical lecturer in the School of Medicine and Medical Science at University College Dublin. His research interests are in the role of innate and adaptive immunity in inflammatory bowel disease (Ulcerative Colitis and Crohns Disease) and in the importance of the host immune response in gastro-intestinal neoplasia, particularly colorectal cancer and Barrett's oesophagus. With his colleagues at the Centre for Colorectal Disease at SVUH/UCD he has an established track record in clinical research on a range of digestive disorders and is actively involved in clinical trials in IBD.

Professor Laurence Egan,

Dean of College of Medicine,
NUI Galway



Prof. Egan graduated from UCG in 1990 (M.B., B.Ch., B.A.O.), and completed internship, house officer and registrar training, based at University College Hospital Galway. He received Membership of RCPI in 1992, and Masters in Medical Science from UCG in 1994. From 1994 to 1999, at the Mayo Clinic in Minnesota he completed further training in Internal Medicine, Clinical Pharmacology & Gastroenterology, receiving American Board certification in those 3 disciplines. NUI Galway conferred an MD in 1999. Prof. Egan then undertook post-doctoral training from 2000 to 2002, in the Laboratory of Mucosal Immunology at the University of California, San Diego, before returning to the Mayo Clinic to take up a consultancy in Gastroenterology, with joint appointment in the Department of Molecular Pharmacology and Experimental Therapeutics. His research focuses on molecular characterization of signaling pathways involved in intestinal epithelial cell stress, death and malignant transformation, and optimization of personalized approaches to biological therapy. In 2005, Prof. Egan was recruited by NUI Galway and the Health Service Executive Western Region as Professor of Clinical Pharmacology/Consultant Clinical Pharmacologist and Head of the Department

of Pharmacology & Therapeutics, a position he took up in August 2005. Prof. Egan has served as Interim Director of the HRB Clinical Research facility Galway and as Head of the discipline of Pharmacology and Therapeutics. He was associate editor at Gut, and has been editor-in-chief of the Journal of Crohn's and Colitis since 2014.

Mr Jürgen Mulsow

Consultant General and Colorectal Surgery
Mater Hospital, Dublin



Jürgen Mulsow is a Consultant Surgeon in the Department of Colorectal Surgery at the Mater Misericordiae University Hospital and Clinical Lecturer in Surgery at University College Dublin. He undertook specialist training in Ireland before completing a Fellowship in Colorectal Oncology at the University Clinic in Erlangen, Germany.

His specialist interests include the treatment of colorectal and peritoneal malignancy, inflammatory bowel disease, pelvic floor disorders, and surgical education and training. He was awarded the Association of Surgeons of Great Britain and Ireland Medal for first place in the Intercollegiate Exit examination (FRCS) in 2010 and was the 2012 Association of Coloproctology of Great Britain and Ireland Travelling Fellow to the United States.

Dr Eoin Slattery

Consultant Gastroenterologist
University Hospital Galway



Dr Eoin Slattery graduated with honours from University College Dublin in 2002. He completed his internship and general professional training at St Vincent's University Hospital. He became a member of the Royal College of Physicians of Ireland in 2005. Thereafter, he commenced higher specialist training in gastroenterology, rotating through St Vincent's Hospital, Beaumont Hospital and St Luke's Hospital Kilkenny.

During his training he obtained a post-graduate Doctorate of Medicine as the Abbott Newman fellow in Inflammatory Bowel Disease at University College Dublin. His translational research project focused on the beneficial effects of cigarette smoke on Ulcerative Colitis.

Following completion of higher specialist training, Dr Slattery embarked on sub-specialist fellowship training. He was appointed as the Irish Society of Gastroenterology Boston Scientific Advanced endoscopy fellow rotating through the Mater Hospital, Dublin and then on to Beth Israel Deaconess Medical Centre/ Harvard Medical School, Boston, MA. He then proceeded to spend 2 years as the Advanced GI nutrition support fellow in New York Presbyterian Hospital/ Columbia University Medical Centre..

He returned home to Ireland in 2015 where he was appointed as a consultant gastroenterologist at University Hospital Galway. Dr Slattery is also the Saolta group clinical lead for Endoscopy. In 2019 he was appointed as the National Specialty Director for training in Gastroenterology by the RCPI.

Dr Karl Hazel

SpR Training Representative
Beaumont Hospital, Dublin



I am a fourth year trainee on the Higher Specialist Training in Gastroenterology. I am currently undertaking my MD in RCSI and Beaumont Hospital, investigating the role of bile acids in IBD. I have an interest in all areas of Gastroenterology, with a special interest in IBD and endoscopy. I am delighted to be the trainee representative on the Board of ISG and hope we can continue to provide events for trainees in the vein of our breakout session at the ISG Winter meeting 2020 which was an outstanding success for all involved.

Dr Subhasish Sengupta,

Consultant Gastroenterologist
Beaumont Hospital, Dublin / Our Lady of Lourdes Hospital, Drogheda



Dr Subhasish Sengupta works as a Consultant Gastroenterologist at Our Lady of Lourdes Hospital, Drogheda. Dr Sengupta graduated from Calcutta University, India and subsequently obtained his MRCP (UK) in 2000. He successfully completed his Specialist Registrar training (CCST) in Gastroenterology mainly working in Mater Misericordiae and Beaumont University Hospitals Dublin in 2007. His worked on 'Adrenergic Control of Gallbladder Motility' and obtained his Masters Degree from University College Dublin (UCD) in 2007. He then undertook his Advanced Interventional Hepato-biliary fellowship at Dublin and Beth Israel Deaconess Medical Center, Boston MA, USA 2007-2008. Apart from doing general GI work between Lourdes Hospital Drogheda and Louth Hospital, Dundalk, he does hepatobiliary procedures (ERCP and EUS) at Beaumont University Hospital, Dublin.

Special Interests: Pancreaticobiliary Disease and Inflammatory Bowel Disease.

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1967-1968	Dr Byran G Alton (R.I.P.)
1964-1966	Professor Patrick Fitzgerald (R.I.P.)
1962-1964	Professor Oliver Fitzgerald (R.I.P.)

Abstract Submissions selected for Endoscopy E-Poster Presentation 2021

Thursday 2nd December

Abstract No.	Ref:	Title	Author	Time
1	21W143	Multiple Colorectal Adenomas in a BowelScreen Population	Jane Cudmore	8.00
2	21W144	PillCam ESO 3 Capsule: An Additional Upper GI Diagnostic Tool. First Irish Experience.	Mary Nwaezeigwe	8.05
3	21W121	Application of a simple imaging bundle could improve neoplastic polyp prediction on colon capsule endoscopy (CCE).	Serhiy Semenov	8.10
4	21W170	The Use of Endoscopic Full Thickness Resection for Large and Recurrent Colorectal Polyps in the South Eastern Trust since 2018: A Potential Alternative to Surgical Resection.	Sophie Davidson	8.15
5	21W185	A Comparison Between the Sedative and Analgesic Agents Required in Device Assisted Enteroscopy (DAE) and Other Endoscopic Procedures. Is Conscious Sedation Enough?	Caroline Walker	8.20
6	21W125	Should We Be Performing Inpatient Colonoscopies?	Nicholas Zhang	8.25
7	21W197	Endoscopic Management of Laterally Spreading Lesions of the Rectum including the Ano-Rectal Junction: A Single Centre Experience	Eilis McCarthy	8.30
8	21W176	Retrospective Analysis Of The Utility Of Patency Capsule Prior To Capsule Endoscopy	Fintan O'Hara	8.35
9	21W116	Bowel Preparation Quality For Left-Sided Colonoscopies - An 18 Month Review	Joseph Taylor	8.40
10	21W136	Single centre endoscopic findings in patients taking antiplatelet and anticoagulants undergoing screening colonoscopy.	Matthew McKenna-Barry	8.45

ENDOSCOPY POSTER PRESENTATIONS

ABSTRACT 1 (21W143)

Multiple Colorectal Adenomas in a BowelScreen Population

Author(s)

J. Cudmore, M.Carey, J.Leyden

Department(s)/Institutions

Department of Gastroenterology, Mater Misericordiae University Hospital, Dublin

Introduction

Recent BSG guidelines recommend considering testing for hereditary polyposis syndromes for individuals with multiple colorectal adenomas(MCRAs). Individuals age 60 years or older with more than 20 cumulative adenomas or 10 adenomas with a family history of colorectal cancer(CRC) or polyposis should be considered for germline testing for APC or MUTYH mutations. Even in the absence of mutation these individuals require close endoscopic surveillance.

Aims/Background

To identify individuals in the Mater BowelScreen population with MCRAs who may need referral for genetic testing based on current guidelines.

Method

Individuals with 5 or more polyps detected through BowelScreen in MMUH from 2015 to 2020 were identified. Endorad and pathology reports were used to determine polyp number and histology. All colonoscopies performed in MMUH for each individual were included. Family history was recorded from nursing pre-assessment.

Results

1,992 individuals had a colonoscopy through BowelScreen over a 5-year period. 257(12.9%) had 5 or more polyps on a single colonoscopy. 54 (2.7%) had 10 or more adenomas cumulatively. Of these 9(0.45%) had >20 adenomas. 4 individuals with 10-19 adenomas had a family history of CRC. The mean age was 66 years. In total 13(0.65%) individuals met criteria to be considered for germline testing.

Conclusions

Although only a small number of individuals would warrant consideration for germline testing, it is important that they are identified so that appropriate counselling, genetic testing and surveillance can be considered. This also highlights the need for appropriate resources and infrastructure within BowelScreen to identify and manage patients with potential underlying hereditary cancer syndromes.

ABSTRACT 2 (21W144)

PillCam ESO 3 Capsule: An Additional Upper GI Diagnostic Tool. First Irish Experience.

Author(s)

M Nwaezeigwe, L Nolan, J O'Neill, L Quinlivan, A Kaar, Lucey M, J O'Grady, J McCarthy, M Buckley.

Department(s)/Institutions

Department of Gastroenterology and GI Function Lab. Mercy University Hospital, Cork.

Introduction

Upper gastrointestinal (UGI) video capsule endoscopy (VCE), perhaps a natural progression from small bowel video capsule, provides an effective alternative to conventional oesophago-gastro-duodenoscopy (OGD). The Covid-19 pandemic led to unprecedented change in endoscopy services, accelerating the need for UGI VCE to help reduce patient exposure but allow continuation of endoscopy services We report on the use of UGI VCE as an alternative to OGD throughout all phases of COVID-related endoscopy adjustments.

Aims/Background

Prospective observational study to assess identification of relevant UGI anatomical landmarks on UGI VCE as defined in the British Society of Gastroenterology.

Method

Inclusion criteria were: Patients with dyspepsia under 40 years of age with no red flag symptoms; known cirrhosis for variceal screening; UGI bleeds with a Blatchford score ≤ 2 . A protocol for preparation and series of positional movements was developed for the procedure. Landmarks and pathology detection were evaluated by two independent endoscopists.

Results

104 UGI VCE performed since June 2020, of which 14 required further evaluation with OGD. The most common reasons for subsequent OGD were dyspepsia and abdominal pain, 64% and 23% respectively. Clear view of the cardia in 97% of cases, fundus 94%, greater curve 97%, lesser curve 96%, incisura angularis 91%, antrum 92%, pylorus 90% and D2 79% were obtained. The main findings at UGI VCE were reflux oesophagitis and gastritis, with normal mucosa observed in 43% of cases. Adenocarcinoma of the OG junction was detected in 1 case.

Conclusions

Since June 2020, 90 patients were successfully evaluated and managed using UGI VCE, thus helping to reduce patient endoscopy wait-times and pressure. UGI VCE may serve as a clinical diagnostic tool, used alongside OGD in appropriate cases, to help improve patient services and care delivery

ABSTRACT 3 (21W121)

Application of a simple imaging bundle could improve neoplastic polyp prediction on colon capsule endoscopy (CCE).

Author(s)

S. Semenov*, M.S. Ismail*, S. O'Donnell, A. O'Connor, N. Breslin, B. Ryan, D. McNamara*.

Department(s)/Institutions

Department of Gastroenterology, Tallaght University Hospital, Tallaght, Dublin 24 *Trinity Academic Gastroenterology Group, Trinity College Dublin

Introduction

Differentiating adenomatous from hyperplastic polyps is essential in CCE. Early data suggests high predictive accuracies with Fuji Intelligent Colour Enhancement (FICE) in CCE.

Aims/Background

Assess the accuracy of white-light polyp characteristics and FICE in detecting neoplasia in matched CCE polyps removed at colonoscopy.

Method

Polyps retrospectively identified from a CCE database were matched if identified in their predicted colonic segment on subsequent colonoscopy, were similar in size or were the only polyp in the segment. These were reviewed by a CCE reader panel blinded to histology. Polyp margin, pigmentation, white-light pit-pattern, Kudo's pit-pattern under FICE and size were recorded. Inter-observer correlation, sensitivity, specificity, positive and negative predictive values (PPV&NPV) were calculated per parameter.

Results

From 711, 49 studies were identified, yielding 71 matched polyps, 24(34%) hyperplastic and 47(66%) neoplastic. Given good inter-observer agreement, diagnostic accuracy, based on consensus results, for irregular margin, increased pigmentation, white-light, FICE and size \geq 6mm was 89%, 85%, 80%, 81%, 91% PPV and 57%, 51%, 46%, 45%, 55% NPV. Parameters with better sensitivities for neoplasia were all white-light criteria; irregular margin 68%, size \geq 6mm 64% and pigmentation 62% and the least sensitive was FICE(53%). Combining all parameters improved performance; sensitivity 77%, specificity 68%, PPV 82% and NPV 59%. With current guidelines, 30/47(64%) neoplastic and 3/24(13%) hyperplastic polyps would be referred for polypectomy. Applying the imaging bundle would improve neoplastic lesion referral to 77%(36/47) but increase hyperplastic referral to 33%(8/24).

Conclusions

Despite good inter-observer agreement, performance of FICE alone is disappointing. Applying an imaging bundle appears to improve accuracy and warrants further investigation.

ABSTRACT 4 (21W170)

The Use of Endoscopic Full Thickness Resection for Large and Recurrent Colorectal Polyps in the South Eastern Trust since 2018: A Potential Alternative to Surgical Resection.

Author(s)

S Davidson, P B Allen, A McBrearty, K McCallion

Department(s)/Institutions

General Surgery and Gastroenterology, Ulster Hospital, South Eastern Trust, Northern Ireland

Introduction

Surgical excision has been the mainstay of treatment for patients with complex colorectal polyps. Endoscopic full thickness resection (eFTR) offers an alternative treatment option for these patients.

Aims/Background

To review a case series of patients who have undergone eFTR for large or recurrent colorectal polyps. To assess patient demographics, outcomes, complications and follow up.

Method

A retrospective review of all patients who had eFTR in the South Eastern Trust since 2018. Data collected from Unisoft (endoscopy reporting system) and NI Electronic Care Record. Large polyps were defined as \geq 20mm and recurrent as being previously incompletely excised using standard endoscopic techniques.

Results

Between October 2018-May 2021, 31 patients underwent eFTR. Of these, 13 were female (42%) and overall median age was 71(55-86).

21 polyps were recurrent and 10 polyps were \geq 20mm. 94%(29/31) were discharged on the day of procedure with no significant immediate or delayed complications. 17 polyps were histologically malignant; 5 pT1 adenocarcinomas had R0 resections, 4 showed no residual tumour, 8 patients had incomplete excision with 6 proceeding to surgical resection. Excluding patients who proceeded to surgery, 88%(22/25) have had at least one surveillance endoscopy with a median wait time to initial surveillance of 89 days. Recurrence was identified in 4 patients, all were originally recurrent polyps and were successfully managed endoscopically.

Conclusions

Endoscopic Full Thickness Resection provides a safe and effective treatment option for patients with large and/or recurrent colorectal polyps enabling end-organ preservation and offering a potentially curative approach for patients deemed unsuitable for major surgical resection.

ABSTRACT 5 (21W185)

A Comparison Between the Sedative and Analgesic Agents Required in Device Assisted Enteroscopy (DAE) and Other Endoscopic Procedures. Is Conscious Sedation Enough?

Author(s)

C Walker, F O'Hara, A Boland, S Anwar, R Ballester, B Ryan, A O'Connor, S O'Donnell, N Breslin, D McNamara

Department(s)/Institutions

Tallaght University Hospital, Dublin Ireland Trinity Academic Gastroenterology Group, School of Medicine, Trinity College Dublin, Ireland

Introduction

There is growing recognition that deep sedation may be preferable for prolonged and complex endoscopic procedures to ensure adequate comfort, reduce the risks of over-sedation, and increase technical success. The joint position statement by the BSG, JAG and RCoA suggest anaesthetist led deep sedation should be considered for DAE.

Aims/Background

To compare conscious sedation and analgesia required for DAE and other endoscopic procedures.

Method

A retrospective review was performed. Data was collected from the endoscopy database. Patient demographics, procedure type, sedation and analgesia dosages, and patient comfort (by Modified Gloucester Score), were recorded, and compared between procedures using unpaired t-test and Fisher's exact test as appropriate.

Results

Mean midazolam dosage used for anterograde DAE (ADAE) (n=100) 4.87mg was higher than OGD(n=100) 2.3mg(p<0.0001), but similar to ERCP(n=100) 4.45mg. Mean fentanyl use was higher in ADAE 64.58mcg than OGD 30.28mcg(p<0.0001), and similar to ERCP 58mcg. For retrograde DAE's (RDAE)(n=43) versus colonoscopy(n=50), mean midazolam and fentanyl doses were significantly higher, 5.12mg vs 3.15mg(p<0.0001), and 71.63mcg vs 44.25mcg(p<0.0001), respectively. Comfort scores were adequate, range 1.06-1.28, in all but 1 DAE and 1 ERCP. Increased midazolam/fentanyl use was associated with lower comfort scores, 1.33vs1.4 higher and 1.14vs1.1 lower sedation(p=0.0001). More DAE patients received above the recommended maximum midazolam(5mg) dose,

ADAE 25% and RDAE 35%, compared to OGD 1%($p<0.0001$) and colonoscopy 4%($p=0.0001$), but ADAE was similar to ERCP 17%.

Conclusions

Due to the prolonged and complex nature of DAE, deeper levels of sedation should be considered in line with published guidelines to promote safety, ensure comfort, and possibly enhance technical success.

ABSTRACT 6 (21W125)

Should We Be Performing Inpatient Colonoscopies?

Author(s)

N Zhang¹, J Taylor¹, J Cudmore², CL Murphy²

Department(s)/Institutions

1 School of Medicine, University College Dublin, Belfield, Dublin 4
2 Department of Gastroenterology and Hepatology, Mater Misericordiae University Hospital, Dublin 7

Introduction

COVID 19 has substantially affected endoscopy waiting lists and concerted efforts are required to ensure all endoscopy slots are used effectively. Inpatient colonoscopies have traditionally been associated with poor preparation due to factors such as patient immobility, inability to take preparation or diet correctly. Additionally, more hospital resources are required for inpatient as compared to outpatient endoscopy services.

Aims/Background

To evaluate the results of inpatient colonoscopies at MMUH.

Method

A retrospective review of inpatients who underwent colonoscopy in MMUH from January 2020 - June 2021 was performed. Types of bowel preparation used, preparation quality assessed by EndoRAAD parameters and clinical outcomes were collected and reviewed.

Results

161 inpatient colonoscopies were performed over this time frame; quality of bowel preparation was assessed to be "Excellent/Good" in 53 (32.9%), "Adequate/Satisfactory" in 62 (38.5%) and "Poor" in 38 (23.6%). 8 (4.97%) of the colonoscopies carried out were unable to be completed, citing poor bowel preparation. 8.07% of patients underwent a repeat colonoscopy due to poor preparation on the initial colonoscopy with a further 2.48% undergoing CT colonography

Conclusions

In an era of massive waiting list pressures, an 8% need for repeat colonoscopy and a 23% rate of poor preparation for inpatient colonoscopy is unacceptably high and represents a waste of finite resources. These data suggests that the endoscopy unit's inpatient endoscopy policy needs to be reviewed to favour use of outpatient colonoscopies where possible with adequate pre-procedure assessment for fitness for colonoscopy.

ABSTRACT 7 (21W197)

Endoscopic Management of Laterally Spreading Lesions of the Rectum including the Ano-Rectal Junction: A Single Centre Experience

Author(s)

Eilis McCarthy¹, Jan Leydenc^{1,2}, Sheila King¹, Conor Lahiff^{1,2}

Department(s)/Institutions

1. Gastrointestinal Unit, Mater Misericordiae University Hospital 2. School of Medicine, University College Dublin

Introduction

Endoscopic mucosal resection (EMR) is an established therapy for removing rectal laterally spreading lesions, although increasing evidence supports the use of en-bloc techniques for suitable lesions. The optimal therapy for removing anorectal junction LSLs (ARJ-LSLs) is unknown but use of EMR is supported by prospective observational data. The SMSA score (size, morphology, site access) is a validated tool for predicting successful resection and complications for colorectal LSLs.

Aims/Background

Review of clinical outcomes for rectal and ARJ-LSLs EMR's over a two-year period

Method

Patients undergoing EMR for rectal and ARJ-LSLs >10mm were included. Data were obtained using electronic records. Safety was evaluated by the frequencies of bleeding, deep mural injury (DMI) and delayed perforation. Long-term efficacy was evaluated by the absence of recurrence.

Results

23 rectal LSLs >10mm (including 9 ARJ-LSLs) were resected endoscopically over 28 months. Mean age 63.6 years, median polyp size 27mm (range 10-80). En-bloc resection was achieved in 65% (n=15). Histology: adenoma (n=21), neuroendocrine tumour (n=1) and cancer (n=1). High grade dysplasia present in 6 adenoma (31%). Complication rate was 13% (n=3). 12/23 (52%) had undergone at least one site check. Recurrence occurred in 9%, 4%, 4% and 0 at SC1-SC4, respectively. Both recurrences were initially removed piecemeal EMR and were SMSA level 4. No en-bloc resections recurred. SMSA level 4 was associated with higher risk of recurrence than level 1-3 ($p<0.05$). Recurrence and complication rates were similar for rectal LSLs and ARJ-LSLs. En bloc resection rates were lower for ARJ-LSLs (44% vs. 78%), there was no difference in complications or recurrence rates.

Conclusions

EMR of rectal LSLs, including lesions involving the anorectal junction is safe and effective and should be guided by SMSA score. En bloc resection should be favoured where possible.

ABSTRACT 8 (21W176)

Retrospective Analysis Of The Utility Of Patency Capsule Prior To Capsule Endoscopy

Author(s)

F. O'Hara, C. Walker, S. O'Donnell, A. O'Connor, N. Breslin, B. Ryan, D. McNamara

Department(s)/Institutions

Tallaght University Hospital, Dublin

Introduction

Retention in capsule endoscopy (CE) remains a major complication with rates ranging from 1% to 5%. Investigations to rule out strictures prior to CE in at risk groups are recommended. The Agile Patency Capsule Test (PCT) is designed specifically to rule out relevant strictures. The PPV of PCT is unclear and its expanded use may unnecessarily prevent patients from undergoing CE.

Aims/Background

To assess the impact of PC in a capsule endoscopy cohort.

Method

We performed a retrospective review of PCT's performed in TUH over 1 year from July 2020-2021. Patient demographics, indication for CE, PCT indication and result and CE findings were recorded. Indication for PCT was validated according to ESGE guidelines.

Results

In all 166 (15%) of 1127 CE referrals were deemed to require a PCT. PCT indication was appropriate in 88% (n=145) including known Crohn's 26%, prior GI surgery 28%, regular NSAID's 14%, abnormal radiology 10%, obstructive symptoms 6% and other 4%. Of inappropriate PCT's, 92% (n=19) were referred with suspected Crohn's disease only. Overall 43% (n=71) failed the PCT, rates were similar for appropriate and inappropriate studies 62/145 (42%) and 10/21 (48%), $p < 0.3$. No patients who passed the PCT had a retention and there were no PCT associated A/E's during this period.

Conclusions

Our unit has a high compliance with current guidelines for patency assessment. PCT's are an effective means of reducing retention in at risk groups. The high failure rate (43%) warrants further investigation to avoid the unnecessary exclusion of patients from CE.

ABSTRACT 9 (21W116)**Bowel Preparation Quality For Left-Sided Colonoscopies – An 18 Month Review****Author(s)**

J Taylor (1), N Zhang (1), J Cudmore (2), CL Murphy (2)

Department(s)/Institutions

1) School of Medicine, University College Dublin, Belfield, Dublin 4 2) Department of Gastroenterology and Hepatology, Mater Misericordiae University Hospital, Dublin 7

Introduction

Left-sided colonoscopies (LCs) are commonly performed for investigation of lower gastrointestinal symptoms such as fresh rectal bleeding in hospital in-patients. The success of LCs depends on effective cleansing of the bowel contents usually with a laxative enema.

Aims/Background

To assess the quality of bowel preparation reported on all in-patient LCs performed over an 18-month period in MMUH.

Method

A Retrospective chart review of all LC reports was performed on in-patients at MMUH from January 2020 – May 2021. Preparation quality was defined by the automatic reporting parameters of either "excellent/good", "adequate/satisfactory", "poor" or "failed due to poor prep" as entered on the Endorad reporting system.

Results

321 in-patient LCs were performed in the stated timeframe at MMUH. The most common method of bowel preparation was phosphate enema, used in 79.8% of LCs. The reported quality of bowel preparation across all LCs showed 20.9% as "excellent/good", 48.3% as "adequate/satisfactory", 28.3% as "poor", and 2.5% as "failed due to poor prep". Therefore 69.2% of LCs were adequate/satisfactory or above. 4.1% of all LCs were booked for repeat due to

inadequate bowel preparation.

Conclusions

This study showed that >1/3 of in-patient LCs had poor preparation or failed due to poor preparation. Given the intercurrent pressures on endoscopy waiting lists, this is an area which could be targeted for improvement to avoid further investigations. Rigorous patient pre-assessment for fitness for procedure and adequate evaluation of response to initial enema with a view to repeating preparation if inadequate response are two such methods which could be implemented.

ABSTRACT 10 (21W136)**Single centre endoscopic findings in patients taking antiplatelet and anticoagulants undergoing screening colonoscopy.****Author(s)**

Matthew McKenna-Barry, Emma McCormick, Mohammed Elsidig & Finbar MacCarthy

Department(s)/Institutions

Gastroenterology Department, St. James' Hospital, Dublin 8

Introduction

Colorectal cancer screening in Ireland is offered to those aged 60 to 69 with initial faecal immunohistochemistry followed by screening colonoscopy.

Aims/Background

This audit assesses the incidence of cancer, high risk findings (HRF) and advanced adenomas (AA) in patients taking and not taking antiplatelet and anticoagulation medication undergoing screening colonoscopy.

Method

The audit was performed of index procedures from a single screening centre from September 2018 to August 2020. Patient records were reviewed for medication, procedure and demographics. Patients were divided into three groups; those taking therapeutic anticoagulation or dual antiplatelets, those taking a single antiplatelet and those taking neither anticoagulation or antiplatelets. The incidence rate (IR) for each medication group was calculated and compared to patients not taking antiplatelet or anticoagulation to derive an incidence rate ratio (IRR). The p value for the IRR is the exact mid-p double sided p value.

Results

553 (87.92%) technically successful index colonoscopies with complete information were audited. 21 (IR 0.06) cancers, 86 (IR 0.24) HRF and 92 (IR 0.26) AA were seen in 360 (65.10%) patients not taking anticoagulant or antiplatelet medication. 5 (IR 0.04, IRR 0.64 $p = 0.39$) cancers, 24 (IR 0.18, IRR 0.75 $p = 0.22$) HRF and 27 (IR 0.2, IRR 0.85 $p = 0.47$) AA were seen in 133 (24.05%) patients taking a single antiplatelet. 0 cancers, 18 (IR 0.3, IRR 1.26 $p = 0.38$) HRF and 14 (IR 0.23, IRR 0.23 $p = 0.75$) AA were seen in 60 (10.85%) patients taking either dual antiplatelet therapy or therapeutic anticoagulation.

Conclusions

This audit demonstrates the comparable findings in patients undergoing screening colonoscopy regardless of the use of anticoagulant or antiplatelet medication.

Abstract Submissions selected for IBD E-Poster Presentation 2021

Thursday 2nd December

Abstract No.	Ref:	Title	Author	Time
11	21W155	Tofacitinib effectiveness and safety in clinical practice for moderately to severely active ulcerative colitis	Mairéad McNally	8.00
12	21W162	Trends in Colectomy Rates and Biologic use over a 30-year period: What has changed?	Jayne Doherty	8.05
13	21W182	Serum C-Reactive Protein Concentrations are Associated with Inflammatory Protein Secretion by Ex-Vivo Human Ulcerative Colitis Explants	Padraic McDonagh	8.10
14	21W169	Tofacitinib for Hospitalised Patients With Acute Severe Ulcerative Colitis	Siofra Bennett	8.15
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IBD POSTER PRESENTATIONS

ABSTRACT 11 (21W155)

Tofacitinib effectiveness and safety in clinical practice for moderately to severely active ulcerative colitis

Author(s)

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Department(s)/Institutions

St. James's Hospital, Galway University Hospital, St. Vincent's University Hospital, Tallaght University Hospital

Introduction

Tofacitinib is an oral small molecule directed against the JAK/STAT pathway, blocking the inflammatory cascade. It is indicated for the treatment of adult patients with moderately to severely active ulcerative colitis (UC) who have had an inadequate response, lost response, or were intolerant to either conventional therapy or a biologic agent.

Aims/Background

The aim of this study was to describe the outcome of Tofacitinib therapy for UC in real-world clinical practice.

Method

Patients treated with Tofacitinib for active UC were identified from 4 Academic Medical Centres. Baseline clinical data and information on therapy outcomes were collected by a retrospective review of medical notes and electronic patient records. The primary study endpoint was 6-month corticosteroid-free remission. Secondary endpoints included 3-month clinical response, time to Tofacitinib discontinuation, reasons for discontinuation, and rates of adverse events.

Results

54 patients were identified: 66% male; median (range) age of 40.8 years (20-70.6); disease duration 5.7 years (0.2 – 22); follow up 15.1 months (3.6-34.5). The 3-month clinical response and the 6-month corticosteroid-free remission rates were 61 and 42.5%, respectively. 29.6% (16/54) discontinued Tofacitinib during follow-up. The median time to discontinuation was 1.5 months (0-19). Adverse events occurred in 22% of patients (n=12), all of which were minor and self-limiting. There were no cardiovascular or thromboembolic events.

Conclusions

These findings mirror emerging international real-world data and suggest that Tofacitinib is an effective therapy for a UC cohort with refractory disease. This small study demonstrated an acceptable safety profile.

ABSTRACT 12 (21W162)

Trends in Colectomy Rates and Biologic use over a 30-year period: What has changed?

Author(s)

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Introduction

Novel medications including the introduction of biologic therapies in the last decade have expanded treatment options for patients with ulcerative colitis (UC).

Aims/Background

Large studies in the USA and Europe have shown colectomy rates in UC patients are reducing over the past two decades.

Method

We performed a single-centre retrospective study of our prospectively maintained IBD database. Our aim was to look at changes in colectomy rates in patients with UC over the past three decades and need for biologic therapy. Basic demographics, need for biologic therapy and colectomy rates were collected. Need for colectomy and biologic therapy within 10 years of diagnosis was determined across three groups dependent on decade of diagnosis.

Results

2229 patients with confirmed UC were included in our study. Median age at diagnosis was 37 years [range 4.9 -92.6]. 1210 [54.28%] were male. 595 patients were diagnosed between 1990-2000, 795 between 2000-2010 and 790 between 2010-2020. A total of 366 (16.4%) patients had a colectomy during follow-up and 363 (16.3%) were treated with biologic therapies. We found rates of colectomy within 10 years of diagnosis have significantly dropped over the past three decades. From 1990 -2000 595 patients were diagnosed with UC and 131 [22%] patients had colectomies, in 2000-2010 794 patients were diagnosed with UC and 135 [17%] had a colectomy and between 2010-2020 784 patients were diagnosed with UC and 55 [7%] had a colectomy [p = < 0.001]. We found a significant increase in use of biologic therapy within the first 10-years of diagnosis over the last three decades increasing from 0.2% to 5.3% to 22.7% over the past decades [p = < 0.001].

Conclusions

Management of UC has changed over the past three decades including the introduction of multiple biologic therapies and the use of therapeutic drug monitoring has allowed a more personalised approach to management of UC. We can see from this study changes in the management of UC over the past decade have resulted in significant reduction in need for colectomy and an increase in the use of biologics.

ABSTRACT 13 (21W182)**Serum C-Reactive Protein Concentrations are Associated with Inflammatory Protein Secretion by Ex-Vivo Human Ulcerative Colitis Explants****Author(s)**

P. McDonagh, F. O'Connell, J. O'Connell, R. Argue, R. Corcoran, J. O'Sullivan, D. Kevans

Department(s)/Institutions

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Introduction

C-Reactive Protein (CRP) has been shown to correlate with clinical and endoscopic ulcerative colitis (UC) disease activity. Our aim was to evaluate the relationship between CRP and key inflammatory cytokines in UC patients.

Aims/Background

To investigate the relationship between clinical parameters and inflammatory/angiogenic analyte expression in inflamed colonic mucosa

Method

Patients with a confirmed diagnosis of UC presenting for colonoscopy were offered the opportunity to participate. Colonic biopsies were taken and multiplex inflammatory and angiogenic enzyme-linked immunosorbent assay (ELISAs) were performed to evaluate the colonic microenvironment and assess real time secretion of multiple inflammatory and angiogenic analytes including TNF- α

Results

26 patients with UC participated in the study. CRP had a statistically significant positive correlation with total, endoscopic, and clinical Mayo scores ($r=0.5260, 0.543, 0.469$. p -values $0.006, 0.004, 0.0160$ respectively). Bleeding at colonoscopy also correlated very strongly with an elevated CRP ($r=0.859$, p -value= 0.00). CRP had a moderate positive correlation with TNF- α ($r=0.603$, p -value= 0.001) and VEGF receptor ($r=0.492$, p -value= 0.011) levels

Conclusions

In this study CRP displayed a statistically significant positive correlation with the Mayo score, supporting its role as a marker of disease activity. A significant correlation between the CRP and TNF- α expression within the colonic micro-environment was found

ABSTRACT 14 (21W169)**Tofacitinib for Hospitalised Patients With Acute Severe Ulcerative Colitis****Author(s)**

S Bennett, D Storan, M Forry, C Lardner, T Lukose, J Ryan, D Cheriyan, G Harewood, S Patchett, K Boland, A O'Toole

Department(s)/Institutions

Department of Gastroenterology, Beaumont Hospital, Dublin

Introduction

Tofacitinib, a JAK inhibitor, was recently approved for the treatment of moderate to severe ulcerative colitis (UC). For those with Acute Severe Ulcerative Colitis (ASUC), infliximab or cyclosporine

remain the treatment of choice for those who fail to respond to steroid therapy, with data on tofacitinib use in this cohort limited to case series.

Aims/Background

To evaluate tofacitinib efficacy in patients hospitalised with ASUC requiring intravenous (IV) steroids.

Method

A retrospective analysis was performed on all patients who were hospitalised with ASUC who received tofacitinib for induction of remission. ASUC was defined as the need for IV corticosteroids and meeting Truelove and Witts criteria or having laboratory or endoscopic features of severe disease.

Results

6 patients met the inclusion criteria, 2/6 female, mean age 41 ± 19 years. All were biologic-experienced and previously received infliximab. 2 previously received adalimumab and 1 received vedolizumab. Median CRP and albumin prior to tofacitinib treatment were 20 (IQR 1.5-53) and 37 (IQR 35-39) respectively. Tofacitinib was administered at 10mg BD. 5/6 patients (83%) achieved clinical remission and avoided colectomy. The remaining patient required a colectomy 4 days after commencing tofacitinib. Of the 5 who responded, 4 currently remain on tofacitinib 5mg BD after a median 212 days while 1 experienced disease recurrence and is currently maintained on ustekinumab. No adverse events were recorded in those receiving tofacitinib.

Conclusions

Tofacitinib appears to be a safe and effective treatment option for ASUC in biologic-experienced patients with 83% of our cohort achieving initial clinical remission and avoiding colectomy.

ABSTRACT 15 (21W149)**Association Between Vedolizumab Therapy Outcome and Pre-treatment DUBLIN Score & CRP/Albumin Ratio in Ulcerative Colitis****Author(s)**

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Department(s)/Institutions

Department of Gastroenterology, St James's Hospital, Dublin 8 School of Medicine, Trinity College Dublin

Introduction

The DUBLIN score is a measure of ulcerative colitis (UC) inflammatory burden and is associated with clinical outcomes. A high CRP/albumin ratio (CAR) is associated with disease severity in IBD.

Aims/Background

To evaluate if there was an association between vedolizumab therapy outcome and pre-treatment DUBLIN score and CAR in UC.

Method

35 patients with UC initiating vedolizumab with available pre-treatment DUBLIN score and CAR data were identified. Baseline characteristics, biochemistry and endoscopic findings were defined by retrospective review. A previously validated DUBLIN score threshold of ≥ 3 and CAR threshold >0.6 were utilised to categorise patients with high inflammatory burden. Clinical response at

3-months and corticosteroid-free remission at 6-months were recorded. The association between 3-month clinical response and 6-month remission rates & pre-treatment DUBLIN score and CAR ratio were evaluated. P values <0.05 were considered significant

Results

Baseline characteristics of the study cohort: age [median, range] 53 [19 -87] years; 60% male; disease duration [median, range] 11 [2-41] years. A pre-treatment DUBLIN score ≥ 3 and CAR >0.6 were observed in 65% and 51% of patients respectively. 3-month clinical response and 6-month corticosteroid-free remission rates were observed in 79% and 67% of the cohort respectively. There was no significant difference between rates of 3-month clinical response and 6-month corticosteroid-free remission comparing high and low pretreatment DUBLIN score and CAR groups, $p=0.59$ and $p=0.16$ respectively.

Conclusions

Vedolizumab was an effective therapy in patients with a significant inflammatory burden assessed by DUBLIN score and CAR. Pre-treatment DUBLIN score and CAR were not associated with therapy outcome.

ABSTRACT 16 (21W126)

Knowledge of the Management of Acute Severe Colitis Amongst Non-Consultant Hospital Doctors

Author(s)

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Department(s)/Institutions

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Introduction

Acute severe ulcerative colitis (ASUC) is a medical emergency with significant morbidity and mortality. In the on-call setting, specialist gastroenterology expertise may not be readily available. It is critical that admitting non-consultant hospital doctors (NCHDs) have adequate knowledge of the management of ASUC. The Acute Colitis Pathway was introduced in Beaumont hospital in 2013, and interventions included are based upon the recommendations of the European Crohn's and Colitis (ECCO) guidelines.

Aims/Background

We aim to identify awareness of the acute colitis pathway amongst Beaumont hospital NCHDs and to identify gaps in knowledge in their management of ASUC.

Method

All medical NCHDs who participate in general medical call were invited to complete an anonymous, 12-point questionnaire, relating to their knowledge of the acute management of severe colitis. Interventions that are not routinely indicated were also included. Gastroenterology registrars were excluded. Descriptive statistics were calculated, and Pearson's Chi-Square analysis used to ascertain relationship between previous gastroenterology exposure and knowledge of the acute colitis pathway with competence in managing ASUC.

Results

We received responses from 50 NCHDs. 56% (n=28) were aware that our institution has an acute colitis pathway. 46% (n=23) felt comfortable with the management of ASUC. Mean score in the

12-point colitis questionnaire was 10 (median 9.5, standard deviation 1.41). The most common omissions were the need for sigmoidoscopy (n=22), admission CXR (n=20), bone protection (n=29) and Mantoux/Quantiferon (n=23). The most common unindicated treatments were bowel rest (n=20), antibiotics (n=16) and PPI (n=27). Lack of exposure to this cohort of patients (n=20) and lack of NCHD education around GI pathology (n=20) were identified as the most common factors contributing to lack of confidence when managing ASUC. Prior experience on a gastroenterology team, and awareness of the acute colitis pathway, were associated with higher scores ($P < 0.05$).

Conclusions

Our data highlights that implementation of an acute colitis pathway is associated with higher knowledge levels and self-reported confidence when managing ASUC amongst NCHDs. Despite variable scores, the vast majority of NCHDs recognised the importance of steroid initiation in ASUC. A programme of education is underway before re-audit at our centre.

ABSTRACT 17 (21W108)

Development of a Nurse-Led Virtual Clinic for Patients with Chronic Stable Inflammatory Bowel Disease (IBD)- A Quality Improvement (QI) Project

Author(s)

A Mullen, T Duignan, CL Murphy

Department(s)/Institutions

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Introduction

The forced introduction of virtual clinics within the department due to the COVID-19 pandemic was favourably received by certain patients who have chronic stable IBD. Virtual clinics allow convenient telephone assessment and triage of patients with stable IBD without the need for hospital attendance.

Aims/Background

A nurse-led virtual IBD clinic was created as QI project to: 1) Provide patients with chronic stable IBD access to high-quality care in a convenient format 2) Free up face to face clinic slots for complex sicker patients. 3) Provide a template for monitoring endoscopic surveillance, medication compliance and clinical investigations

Method

Plan: Clinic format, eligibility criteria, pro-forma documentation and, governance were agreed. Do: suitable patients were recruited prospectively from IBD clinic lists and diverted to virtual clinic. Study: The impact on waiting lists was computed and patient satisfaction assessment is ongoing Act: ongoing service improvement

Results

In the first 6 weeks of the project, 28 patients have been reviewed in the weekly virtual nurse-led clinic. 100% of patients consented to partaking in the clinic as opposed to the standard format. 100% of patients expressed satisfaction with the format and consented to yearly follow-up in this clinic with access to the nurse telephone service should their medical status change. As a result of prospectively triaging upcoming clinic lists with diversion of suitable patients to this clinic, a total of 41 clinic slots over the last 6 weeks were reallocated to urgent patients from the waiting list.

Conclusions

A PDSA approach was taken to successfully set up a nurse-led IBD virtual clinic. All patients reviewed expressed satisfaction with the service and wished to remain in the nurse-led clinic. Diversion of suitable patients from general clinic lists has significantly increased capacity for urgent patient reviews at an earlier increment.

ABSTRACT 18 (21W120)

Exercise in Inflammatory Bowel Disease From the Patient's Perspective, a Survey of Patient-Reported Experience

Author(s)

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Gastroenterology Department, Beaumont Hospital/RCSI, Dublin

Introduction

Physical exercise has many benefits in IBD including anti-inflammatory effects, quality of life improvement, favourable body composition changes and improved psychological health. However, data on the effects of physical activity in IBD are scarce. Patients with IBD have a significant decrease in exercise tolerance compared with healthy individuals. Exercise as a treatment modality in IBD is underutilised.

Aims/Background

To assess physical activity levels, attitudes, and barriers towards exercise in a cohort of patients with IBD.

Method

Anonymous exercise questionnaires were completed by IBD patients from clinics, infusion suite and inpatient wards.

Results

Provisional results were analysed for 68 patients. Weight inversely correlated with exercise importance (from 0-5; 5 very important) $r=0.256$, $p=0.059$ and no. of exercise days correlated with importance $r=0.296$, $p=0.016$. Body image issues reported in 60%; 90% agreed exercise would help and women were more likely to report issues $x^2(1, N=64)=4.1$, $p=0.042$. 60% were < 45 years, males=39 (57%). Mean weight=74.7kg (95% CI: 69.9, 79.56). 71% exercise regularly for a mean 55.27 minutes 3.4 days/week. Mean exercise importance was 4.26 (95% CI: 4.05, 4.49). Exercise effects: 89.7%-felt physically better, 85%-more energy, 91%-mood improved, 82%-relieved anxiety. Walking was the most popular exercise ($n=47, 77\%$). No energy was the most common reason for not exercising (54%); 33% had no time/joint pains; 28% had toilet access concerns. Exercise pattern changed in 66% post IBD diagnosis- 69% exercise less. 70% would like exercise advice and 77% would avail of a physician-supervised programme.

Conclusions

Patients perceive that exercise is important in IBD. Fatigue and body image issues are common. Benefits of exercise should be discussed with patients and ideally local supervised physician-led programmes should be available for referral.

ABSTRACT 19 (21W167)

Early Experience with Ustekinumab Therapy for Ulcerative Colitis

Author(s)

RM Corcoran, N Breslin, C Dunne, K Hartery, F MacCarthy, S McKiernan, D McNamara, A O'Connor, S O'Donnell, B Ryan, D Kevans

Department(s)/Institutions

Department of Gastroenterology, St James's Hospital, Dublin 8. Department of Gastroenterology, Tallaght University Hospital, Tallaght, Dublin 24 Trinity Academic Gastroenterology Group, Trinity College Dublin

Introduction

Ustekinumab is a fully human IgG1 monoclonal antibody that binds to the p40 subunit shared by interleukins 12 and 23. It was approved as therapy for Ulcerative colitis (UC) in October 2019.

Aims/Background

To describe the early experience in routine clinical practice of USTK therapy for UC

Method

A chart review was carried out of all patients prescribed USTK in St James's Hospital and Tallaght University Hospital between April 2013 and April 2021. Patient demographics, baseline characteristics and disease behaviour were characterised. Medication history and duration of USTK therapy was documented.

Results

Nine patients with UC were commenced on USTK during the study period; age [mean, range] 43[19-59]; 55% female; disease duration [mean, range] 8.1 [1-20] years. All subjects had previously received at least 1 anti-TNF. Three patients (33%) were receiving concomitant prednisolone at USTK induction. Median pre-treatment median endoscopic Mayo score was 2 [range 2-3]. 66% of patients ($n=6$) remained on USTK at the time of last clinical follow up. Median [range] duration of USTK treatment was 12.7 [4 - 66] months and no adverse events were noted during the study. Four patients required USTK dose optimisation. Following USTK therapy there was reduction in CRP concentrations [mean, range] from 9.3mg/L [1 - 40] to 2.3mg/L [1 - 5.4]. All 4 patients with available endoscopic following USTK therapy achieved endoscopic remission.

Conclusions

This preliminary data demonstrates USTK to be an effective therapy for UC. Larger observational studies are required to evaluate the effectiveness of USTK as therapy for UC in real world practice.

ABSTRACT 20 (21W109)**Impact of COVID-19 on Care and Perceptions of Inflammatory Bowel Disease Patients in Irish population****Author(s)**

Dr Robert Hughes, Dr Lucina Jackson, Dr William Stack, Sinead Nolan (CNS Gastro), Maria Harrington, Aine Minchin (CNS infusion unit)

Department(s)/Institutions

Department of Gastroenterology, Bon Secours Hospital, Cork

Introduction

Following the emergence of COVID-19 in Ireland in March 2020, measures were implemented to protect clinically vulnerable patients. IBD patients on immunosuppression were risk stratified and advised to partake in 'shielding'. With access to regular clinical activity impeded, alternative ways to assess patients were implemented.

Aims/Background

We sought to analyse the perception a cohort of Irish patients with Inflammatory Bowel Disease on biologic therapy had during COVID-19, its restrictions and impact a pandemic had had on their disease, mental health and hospital treatment.

Method

We conducted an ethics committee approved observational survey of 50 adult patients with IBD receiving biologic treatment through the Gastroenterology Service at Bon Secours Hospital, Cork. All patients completed an anonymised questionnaire relating to their experiences throughout the COVID-19 pandemic.

Results

100% completion of questionnaires. 60% patients reported increased anxiety levels through COVID-19 and restrictions but only 46% reported overall reduction in QALY in this period. 52% reported a significant disease flare during the pandemic period. Only 10% felt COVID-19 had negative impact on their IBD care. 34% of patients trialled alternative methods of consultation but majority of patients reported a preference for face to face consultations for future care of their disease

Conclusions

COVID-19 pandemic and its restrictions had significant impact on levels of anxiety amongst patients but less impact on reported quality of life than would be expected. There was minimal interruption to care with new methods of communication trialled. Majority of patients preference was for return to old style face to face consultations in future.



Handover of ISG Presidency
from Dr Tony Tham to Professor Deirdre McNamara

Abstract Submissions selected for Hepatology E-Poster Presentation 2021

Friday 3rd December

Abstract No.	Ref:	Title	Author	Time
21	21W141	High prevalence of frailty in patients with non-cirrhotic NAFLD	Sara Naimimohasses	8.00
22	21W142	Cortical thinning and cerebral atrophy in non-cirrhotic, hepatitis C virus associated neurocognitive dysfunction.	Damien Ferguson	8.05
23	21W135	Prevalence of liver fibrosis in Alpha-1 Antitrypsin Deficiency individuals and co-relation with high body-mass index	Hassaan Yousuf	8.10
24	21W107	Liver function in a cohort of women with gestational diabetes: A retrospective cross-sectional study	Fergal Fouhy	8.15
25	21W113	The relationship between liver disease stage and circulating angiogenic factors	Charlene Deane	8.20
26	21W157	Comparison of alcohol documentation with AUDIT-C screening in outpatient clinic	Tobias Maharaj.	8.25
27	21W173	Hepatocellular Carcinoma Surveillance in Cirrhotic patients.	Shreyashee Sengupta	8.30
28	21W139	Hepatoadrenal Syndrome In Patients Undergoing Liver Transplant Assessment	Ali Hussain	8.35
29	21W188	Dual Specialty Delivery of Hepatitis B Care in the West of Ireland	Gerard Forde	8.40
30	21W105	HBV related HCC. Where are we?	Julia Sopena Falco	8.45

HEPATOLOGY POSTER PRESENTATIONS

ABSTRACT 21 (21W141)

High prevalence of frailty in patients with non-cirrhotic NAFLD**Author(s)**

Naimimohasses S, O’Gorman P, McCormick E, Ferguson D, McGrath M, Robinson M, Gormley J, Norris S

Department(s)/Institutions

Department of Hepatology, St James Hospital, Dublin Trinity College Dublin

Introduction

End-stage chronic liver diseases are associated with accelerated ageing and increased frailty. Frailty measures have provided clinical utility in identifying patients at increased risk of poor health outcomes, including those awaiting liver transplantation. However, there is limited data on the prevalence and severity of frailty in patients with non-cirrhotic NAFLD.

Aims/Background

To evaluate the prevalence of frailty and pre-frailty in patients with non-cirrhotic NAFLD and correlate with severity of liver disease.

Method

A cross-sectional analysis of functional and laboratory frailty assessments including Fried Frailty Index (FFI), Self-reported frailty index (SRFI) and a lab-based frailty index (FI-LAB), was undertaken for 109 patients with NAFLD, and frailty data were compared with transient elastography and Fibroscan-AST scores.

Results

NAFLD patients had a high prevalence of pre-frailty and frailty, with a median SRFI score of 0.18 (IQR: 0.18), FFI of 1 (IQR:1) and FI-LAB of 0.18 (IQR: 0.12). SRFI and FI-LAB scores increased with degree of liver fibrosis ($p=0.001$ and <0.001 , respectively). Fibroscan-AST scores were significantly higher in frail patients (SRFI $p<0.01$; FI-LAB $p=0.011$). Multi-variate linear regression analysis identified female gender, CAP score and hypercholesterolaemia as significant predictors of higher SRFI scores.

Conclusions

This study highlights the high frequency of frailty and pre-frailty in non-cirrhotic NAFLD patients. Identifying frailty in individuals with pre-cirrhotic NAFLD to is important to facilitate earlier rehabilitation interventions to reduce morbidity and mortality.

ABSTRACT 22 (21W142)

Cortical thinning and cerebral atrophy in non-cirrhotic, hepatitis C virus associated neurocognitive dysfunction.**Author(s)**

Ferguson D, Strahan O, Bergin C, McKiernan S, Doherty C and Norris S

Department(s)/Institutions

Academic Unit of Neurology, School of Medicine, University of Dublin, Trinity College, Dublin 2. Neurology Department, St. James’s Hospital, Dublin 8. School of Psychology, University of Dublin, Trinity College, Dublin 2. Infectious Diseases Department, St. James’s Hospital, Dublin 8. School of Medicine, University

of Dublin, Trinity College, Dublin 2. Hepatology Department, St. James’s Hospital, Dublin 8.

Introduction

Hepatitis C virus associated neurocognitive dysfunction (HCV-AND) occurs independent of liver cirrhosis. The underlying mechanism is poorly understood but functional neuroimaging suggests neuroinflammation and altered neurotransmission. Cerebral atrophy is associated with cognitive impairment in disorders such as HIV-associated dementia, multiple sclerosis and Alzheimer’s disease but has not been examined in HVC-AND.

Aims/Background

To investigate for changes in brain morphometry in HCV-AND.

Method

Non-cirrhotic, HCVRNA positive patients with HCV-AND underwent high resolution 3-dimensional (3D) volumetric T1-weighted brain imaging on a 3 Tesla (3T) Philips Achieva system. Whole brain and segmented morphometric data were extracted using FreeSurfer software pipelines. Imaging was compared to age- and gender-matched healthy controls.

Results

Seventy-four patients (38% female, mean age 40 years, median liver stiffness 5.8 kPa) underwent volumetric brain MRI. Mean left and right hemisphere cortex was significantly thinner in the HCV-AND group compared to the control group (left: 2.46 ± 0.08 mm vs. 2.52 ± 0.06 mm, $t -3.877$, $p = 0.000252$; right: 2.45 ± 0.09 mm vs. 2.52 ± 0.06 mm, $t -4.378$, $p = 0.000038$). White matter volume was lower in the HCV-AND group compared to the control group ($498,427.7 \pm 70,905.8$ mm³ vs. $467,181.9 \pm 56,153.5$ mm³, $t 2.328$, $p = 0.022$). Total subcortical grey matter volume was lower in the HCV-AND group in comparison to the control group ($57,788.5 \pm 5,581$ mm³ vs. $60,446.4 \pm 6,175.9$ mm³, $t 2.084$, $p = 0.04$).

Conclusions

Cortical thinning and grey and white matter volume loss occur in non-cirrhotic HCVRNA positive patients with HCV-AND and may result from chronic HCV induced neuroinflammation.

ABSTRACT 23 (21W135)

Prevalence of liver fibrosis in Alpha-1 Antitrypsin Deficiency individuals and co-relation with high body-mass index**Author(s)**

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Department(s)/Institutions

1. Department of Hepatology, Beaumont Hospital, Dublin 2. Department of Respiratory Medicine, Beaumont Hospital, Dublin

Introduction

Alpha-1 Antitrypsin Deficiency (AATD) is a common, inherited disorder which can lead to significant morbidity and mortality. The homozygous PiZZ variant is found in 1 in 2000 Caucasians, which would have almost no circulating levels of AAT, while heterozygous (PiMZ; PiSZ) variant is seen in 1:30 individuals of Caucasians. While AATD effects on the lung have been extensively studied, its effects on the liver are poorly understood

Aims/Background

To determine prevalence of advanced liver fibrosis in patients with AATD and its co-relation with high BMI



All-Ireland Summer Meeting

Irish Society of Gastroenterology
& Ulster Society of Gastroenterology

9th/10th June 2022
Europa Hotel Belfast

Method

Transient Elastography (TE) is an increasingly used tool to evaluate liver fibrosis, which has been well evaluated in NAFLD as well as AATD. In this a shear wave is used to measure liver elasticity, less elastic liver indicates fibrosis. elastography is excellent in ruling-out significant liver fibrosis and ruling- in advanced liver fibrosis

Results

54 patients were recruited; TE failed on 3 patients. 36/51 (70%) female, 30% male. 24/51 (47%) PiZZ, 13/51 PiMZ (25.4%), and 10 PiSZ. LSM of >7.1KPa was used as cut-off for fibrosis and LSM>10KPa was used as cutoff for advanced fibrosis/cirrhosis. 18 had LSM > 7.1KPa (33%) of them 9 had LSM>10KPa (16%), of them 6 were PiZZ, 1 each of PiMZ, PiSZ and PiMS. 9/24 PiZZ (37.5%) had evidence of fibrosis. 5 PiMZ had evidence of fibrosis (38%) but only one of them had advanced fibrosis. 5 out of 9 individuals with advanced fibrosis were overweight (BMI >25) and all but one of them were obese (BMI >30). In total 11 out of 18 patients with evidence of fibrosis, were either overweight or obese (61.11%). Of the 18 individuals picked up with TE with fibrosis, only 4 were known fibrosis/cirrhosis, rest are all new potential diagnosis.

Conclusions

There continues to be a high prevalence of undiagnosed advanced fibrosis in homozygous AATD individuals. High BMI/obesity does play a role in progression of liver disease in AATD patients. This could be due to liver disease being multi factorial and two insults on the liver could accelerate disease progression. However further studies are required to further investigate these links

ABSTRACT 24 (21W107)**Liver function in a cohort of women with gestational diabetes: A retrospective cross-sectional study****Author(s)**

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Department(s)/Institutions

Cork University Hospital/Cork University Maternity Hospital

Introduction

The aim of this study is to examine alanine aminotransferase (ALT) levels in a cohort of women diagnosed with gestational diabetes mellitus (GDM). To investigate the effect raised ALT has on pregnancy outcomes.

Aims/Background

Those attending the gestational diabetes outpatients' department in CUMH between 2014 and 2016. In total 1,293 were diagnosed with GDM during this time. Of those, 994 had ALTs recorded and so this number were included in my study.

Method

This is a retrospective cross-sectional study carried out on 1263 women attending the gestational diabetes clinic in Cork University Maternity Hospital between the years of 2014 and 2016. BMI class, prematurity (≤ 37 weeks), induction of labour, operative delivery, macrosomia (baby ≥ 4 kg) and admission to the neonatal intensive care unit were variables affecting pregnancy outcome which were collected.

Results

24.7% had raised ALT. Of these, 8 had a documented diagnosis explaining the increased ALT. So, 23.9% had raised ALT and no documented diagnosis. When this group was compared to the group with normal ALT in terms of BMI, there was a statistically significant association ($p=0.001$). Likewise, when the two groups were compared in terms of prematurity there was a statistically significant association established between raised ALT and operative delivery ($p=0.82$), induction of labour ($p=0.69$), macrosomia ($p=0.81$) and NICU admission ($p=0.99$).

Conclusions

There is an association between GDM and increased ALT. There is also an association between raised ALT and increased BMI (>25) and prematurity in this cohort. These groups should be treated as high risk pregnancies. 10 year follow up of these patients would be beneficial in assessing if liver dysfunction during pregnancy is predictive of liver disease later in life.

ABSTRACT 25 (21W113)**The relationship between liver disease stage and circulating angiogenic factors****Author(s)**

C Deane^{1,2}, C Walker^{1, 2}, I McDonald², T Butler², D Mc Namara^{1,2}

Department(s)/Institutions

Department of Gastroenterology, Tallaght University Hospital, Dublin, Ireland¹ Trinity Academic Associate Group, Trinity College Dublin, Dublin, Ireland²

Introduction

Pathological angiogenesis is hypothesized to be linked to the process of liver fibrogenesis.

Aims/Background

This study aimed to determine the relationship between levels of circulating angiogenic factors in subjects with different stages of liver disease.

Method

A prospective case-control study was performed, patients were recruited and grouped into controls, fatty liver (with and without fibrosis) and cirrhosis. Patients with conditions and medications known to alter angiogenic factors were excluded. Patient demographics were noted and 12mls of serum was drawn for the measurement of angiopoietin 1(ang-1), angiopoietin 2, tissue inhibitor of metalloproteinase-1 (TIMP-1) and endostatin. Descriptive statistics were performed and between group analyses were done using ANOVA and Mann Whitney U test. A p value of <0.05 was considered significant.

Results

55 patient results were analysed; 16 cirrhotic, 16 fatty liver, 23 controls. There was no statistical difference between groups in terms of age or Hb. The aetiology of liver disease was alcohol in the majority of cases. Mean Ang-1 levels were statistically lower in the cirrhotic group versus controls only ($p < 0.0436$). TIMP-1 had a statistically higher concentration in those with cirrhosis versus controls ($p < 0.0113$). While Ang-2 had a higher concentration in the cirrhotic group in comparison to control ($p < 0.0002$) and the fatty liver group in comparison to control ($p < 0.0252$). Endostatin was not found to be significantly different between groups.

Conclusions

Our study confirms angiogenic factor expression varies with different stages of liver disease, specifically; ang-1, ang-2, TIMP-1. Further investigation into their potential value as biomarkers of disease stage is warranted.

ABSTRACT 26 (21W157)**Comparison of alcohol documentation with AUDIT-C screening in outpatient clinic****Author(s)**

Tobias Maharaj, Shane Elwood, Alan Doyle, Dee Noone, Attracta Ruxton, Laura Stobie, Pauline Dillon, John Ryan

Department(s)/Institutions

Hepatology Unit, Beaumont Hospital, Ireland

Introduction

Alcohol is a major cause of death and disability worldwide. Irish guidelines recommend a maximum of 17 standard drinks(SD)/week (men) or 11 SD/week (women). The AUDIT-C screening tool is validated to identify hazardous patterns of alcohol consumption.

Aims/Background

To assess concordance between alcohol history taken by a physician in clinic and AUDIT-C scores administered by nurse specialists, and to determine whether the addition of AUDIT-C screening would influence the ultimate clinical diagnosis.

Method

AUDIT-C scores from 265 patients were compared to alcohol history taken from clinic letters. According to alcohol history, patients were grouped into "High Risk" or "Low Risk", and then compared to their corresponding AUDIT-C scores. Clinical diagnoses were reviewed to determine whether the addition of AUDIT-C scores would alter their diagnosis.

Results

Of the 265 patients, 29.2% were female; 43.8% had alcohol related liver disease (ALD), and 24.7% had metabolism associated fatty liver disease (MAFLD). Of these, 89 patients had an alcohol history documented. When compared, 27% of patients showed discordance between alcohol history and AUDIT-C scores. Of these, 79% by alcohol history were "Low Risk", but scored "High Risk" at AUDIT-C screening. When incorporating the AUDIT-C scores, 21/176 (11.9%) of patients with no alcohol history documented would have had an updated diagnosis of ALD if an alcohol screen was done in clinic.

Conclusions

There is significant underestimation of alcohol risk in clinic, and missed opportunities for ALD diagnosis due to insufficient history taking. Routine AUDIT-C screening in clinic is a useful adjunct to clinical assessment to enable appropriate diagnosis and management.

ABSTRACT 27 (21W173)**Hepatocellular Carcinoma Surveillance in Cirrhotic patients.****Author(s)**

Sengupta S, Rowan C, Baburaj B, Idrees Z, Tariq J, Stapleton E, Kirca M.

Department(s)/Institutions

Midlands Regional Hospital Mullingar, Gastroenterology Department

Introduction

Cirrhosis is a significant risk factor for hepatocellular carcinoma (HCC). Regular surveillance of patients with cirrhosis at 6 monthly intervals helps to detect early-stage HCC, which is potentially curable.

Aims/Background

To assess compliance with international guidelines on HCC surveillance in our cohort of patients with cirrhosis.

Method

A retrospective database of patients with a diagnosis of cirrhosis, admitted to MRHM from 2010-2020, was created. This was collected using the Hospital In-Patient Enquiry (HIPE) database. Data collected included: • First radiological documentation of cirrhosis • Number of ultrasound (US) scans booked/attended since initial diagnosis • Number of alpha-fetoprotein (AFP) measurements since initial diagnosis • Primary team of the patient • If a GI referral was made or not • diagnosis of HCC • Mortality, Date of death • Survival diagnosis until death Patients with a HIPE diagnosis of cirrhosis without radiological features of cirrhosis/ portal hypertension were subsequently excluded.

Results

125 patients were included based on HIPE data. .. 37 patients were excluded due to the absence of radiological evidence of cirrhosis. 88 patients were included in the final cohort. 12.5% (n=11) had a diagnosis of HCC with concomitant cirrhosis. The median age of our cohort was 69 years, with 54.5% male (n=48). The mortality rate was 59.1% (n=52), of which 22 patients died within 6 months of diagnosis of cirrhosis. 40% (n=35) of the cohort had completed <50% of recommended US and 68% (n=60) has <50% of recommended AFP measurements. There was a significantly higher mortality rate in the cohort with HCC when compared to the group with no HCC, (p=0.047) The overall mortality and 6-month mortality were significantly higher in cirrhotic patients under the care of non-gastroenterology specialists (p=0.002 and p=0.006 respectively).

Conclusions

From our audit, it is evident that 1. Patients with cirrhosis have a high mortality risk, which increases with the diagnosis of HCC. 2. Compliance with established HCC surveillance recommendations for patients with cirrhosis does not meet international standards. Furthermore, it is evident that there is a significant benefit to providing specialized gastroenterologist/hepatologist- led care to patients with cirrhosis.

ABSTRACT 28 (21W139)**Hepatoadrenal Syndrome In Patients Undergoing Liver Transplant Assessment****Author(s)**

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Department(s)/Institutions

Department of Hepatology, St. Vincent's University Hospital, Dublin.

Introduction

Cirrhosis is a predisposing condition for Adrenal insufficiency (AI) the mechanisms leading to it are the combination of low cholesterol levels, increased cytokines production and destruction of adrenal glands due to coagulopathy. This has been known as Relative Adrenal Insufficiency (RAI) or Hepatoadrenal Syndrome. Previous studies have shown AI to be reported as high as 60% in decompensated cirrhosis patients, but assessment is not routinely performed due to

lack of consensus in diagnosis and conflicting benefits.

Aims/Background

Identify patients who met criteria of RAI while undergoing liver transplant assessment (LTA).

Method

Retrospective review of non-critically-ill patients from January '18 to August '21. RAI was defined as a Short Synacthen test (SST) Delta Cortisol <250nmol/L or AM cortisol <80nmol/L. SPSS analysis was performed.

Results

21% (n:70) of 325 patients undergoing LTA had an AM cortisol level of which 11.4% (n:8) had a SST. 67.1% were male, mean age was 54.2 (SD ±11). Mean MELD was 18.4(SD±8.2), 38.6% (n:27) had hyponatremia (<130mmol/L). Mean AM cortisol was 266nmol/L. 57% (n:40) of patients had cortisol level between 80-300, and just 17.5% (n:7) of them had SST. 17.1% (n:12) patients met criteria for RAI. No significance was found between MELD or sodium in patients with RAI (p 0.68; p 0.71).

Conclusions

Just 17.1% of the cohort had RAI which is lower than previous reports, however SST was rarely performed. No predisposing factors for RAI could be identified, likely due to small sample size. Measuring serum free cortisol concentrations may be of greater benefit if RAI is suspected.

ABSTRACT 29 (21W188)

Dual Specialty Delivery of Hepatitis B Care in the West of Ireland

Author(s)

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Department(s)/Institutions

Hepatology Department, Galway University Hospital Department of Infectious Diseases, Galway University Hospital

Introduction

Galway University Hospital facilitates care for 288 patients with chronic Hepatitis B across the West of Ireland. A Hepatitis B specific clinic was created in 2016. This service is delivered by a multidisciplinary team including Gastroenterologists, Infectious Diseases, Physicians, Clinical Nurse Specialists and Pharmacists.

Aims/Background

To characterise the demographics of our Hepatitis B cohort. To identify patients currently on anti-viral treatment and characterise indications for anti-viral treatment.

Method

A comprehensive database and electronic health record of patients enrolled in the Hepatitis B Clinic was analysed. Information recorded included: ethnicity, antigen status, viral load, radiologic investigations, transient elastography, liver biopsies and treatment status.

Results

288 patients attend the Hepatitis B Clinic. 157 (55%) are male with an average age of 35. Patients originate from 51 different countries. 206 (70%) originate from high endemic areas with 29 (10%) having been born in Ireland. 155 (54%) patients have achieved viral

suppression (characterised as a Hepatitis B Viral Load of <200IU/mL). 23 (8%) are HBeAg positive of whom 19 are currently on treatment. Vertical transmission is the most common identified means of transmission. More than half of patients have had documented transient elastography with 58 (20%) having had liver biopsy. There are 78 (27%) patients currently on treatment for Hepatitis B. Rising ALT, rising viral load and HBeAg positive serology are the main documented indications for treatment.

Conclusions

Hepatitis B is an important global health problem. Global migration patterns can influence local HBV disease burdens as described. Our diverse patient cohort highlights the additional challenges in providing patient care including: language barriers, cultural, and socioeconomic challenges. Multi-specialty input is beneficial in the delivery of care.

ABSTRACT 30 (21W105)

HBV related HCC. Where are we?

Author(s)

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Department(s)/Institutions

Hepatology Department; SVUH, Dublin Infectious Disease Department: SVUH; Dublin

Introduction

In 2016 the WHO on viral hepatitis provided a roadmap for the elimination of viral hepatitis by 2030. HBV is the most carcinogenic viral hepatitis and Nucleos(t)ides Analogues (NA), despite its high potency in achieving viral suppression, do not effectively act on HBV cccDNA; that is, they do not completely eliminate the risk of developing Hepatocellular cancer (HCC). HCC is the end stage of chronic viral infections and is the 4th leading cause of cancer related death.

Aims/Background

Describe the cohort of patients with HBV related HCC

Method

Retrospective review of all patients who had HBV-HCC diagnosed from January 2014 to August 2021. SPSS analysis

Results

5.3% (45/847) of patients with HCC were diagnosed with HBV. 84.4% were male and age was 55.3y (stD 11.56; 31-86). 80% had cirrhosis with 56.3% within the Asian subgroup (p 0.005). 61.4% were on NA and 57% were diagnosed whilst undergoing ultrasound screening. 31% of patients were diagnosed with HBV infection at the time of HCC diagnosis and all of them had advanced BCLC stages (B,C,D) (p 0.006). NA treatment and US screening significantly affected survival (p<0.000).

Conclusions

Almost 1/3 of patients were diagnosed with HBV infection at the time of presenting with HCC related symptoms accompanied with more advanced disease. 65.7% of patients with cirrhosis were diagnosed while on the screening programme. The Asian subgroup was at highest risk of developing non-cirrhotic HBV-HCC. A proactive HBV screening strategy should be performed for patients migrating from high-risk countries. US screening in HBV cirrhosis patients should be strengthened.

Abstract Submissions selected for Small Bowel, Nutrition, Misc. E-Poster Presentation 2021

Friday 3rd December

Abstract No.	Ref:	Title	Author	Time
31	21W148	Diagnostic Accuracy Of Blood-Based Biomarkers For Pancreatic Cancer	Laura Kane	8.00
32	21W118	The patient experience and clinical efficacy of a novel virtual C13UBT service at an Irish tertiary referral center during the Covid 19 pandemic	Sandeep Sihag	8.05
33	21W130	Ambulatory 24-hour pH & Impedance Measures Correlate Poorly With Extra-oesophageal Symptoms of GORD	Brian Nolan	8.10
34	21W111	Review of aetiology, home support and opiate use in parenteral nutrition patients in Northern Ireland (2021)	Ryan Murray	8.15
35	21W114	Intestinal Methanogen Overgrowth (IMO) In An Irish Setting	Lillian Barry	8.20
36	21W158	Decoding Early-Life Stress-Induced Comorbidities: Susceptibility To Different Domains Of Altered Microbiota-Gut-Brain Axis Signalling	Valentina Caputi	8.25
37	21W199	Dietary Education and Intervention is Associated with Improvements in overweight patients with Undifferentiated Irritable Bowel Syndrome	Anna Boland	8.30
38	21W172	Quality Improvement Initiative for Iron Deficient and Restrictive Anaemia Management In The Frail Older Person	Rachel Varley	8.35
39	21W186	An Audit Cycle on Deprescribing of Proton Pump Inhibitors in a tertiary healthcare setting.	Aman Yadav	8.40
40	21W196	An evolving resistant pandemic. Rising community H. Pylori resistance to Clarithromycin; an observational study.	Dr Paul Richard Armstrong	8.45

SMALL BOWEL, NUTRITION, MISC. POSTER PRESENTATIONS

ABSTRACT 31 (21W148)

Diagnostic Accuracy Of Blood-Based Biomarkers For Pancreatic Cancer

Author(s)

Kane, L.E. (1) Mellotte, G.S. (2) Mylod, E. (1) O'Brien, R.M. (1) O'Connell, F. (1) Buckley, C.E. (1) Arlow, J. (3) Nguyen, K. (3) Mockler, D. (4) Meade, A.D. (3) Ryan, B.M. (2) Maher, S.G. (1)

Department(s)/Institutions

1 Department of Surgery, Trinity St. James's Cancer Institute, St. James's Hospital, Dublin 8 2 Department of Gastroenterology, Tallaght University Hospital, Dublin 24 3 School of Physics and Clinical Optometric Science, Technological University Dublin, Dublin 2 4 Medical Library, Trinity College Dublin, Dublin 2

Introduction

Pancreatic ductal adenocarcinoma (PDAC) has a 5-year survival rate below 5%. The current clinical gold-standard for PDAC diagnosis is the blood-based biomarker CA19-9. However, CA19-9 has been shown repeatedly to be inaccurate and have poor diagnostic performance.

Aims/Background

This review aims to assess the reported diagnostic accuracy of all biomarkers examined in PDAC by directly comparing individual biomarkers and multi-biomarker panels, both containing CA19-9 and not (novel).

Method

A systematic review was conducted in accordance with PRISMA standards. Individualised search strategies for three academic databases identified 5,885 studies. After two rounds of screening, 250 studies were included. Data were extracted and assessed for bias. A multivariate three-level meta-analysis with subgroup moderators was run in R (v1.3.959) using reported AUC values as effect size.

Results

three-level meta-analysis with subgroup moderators was run in R (v1.3.959) using reported AUC values as effect size. Results Based on the three-level meta-analytic model, the pooled AUC value for all multi-marker panels (AUC=0.898, 95% CI: 0.88-0.91) was significantly higher than all single markers (AUC=0.803, 95% CI: 0.78-0.83)($p<0.0001$). The pooled AUC value for CA19-9 alone was significantly lower compared to the multi-marker panels containing CA19-9 ($p<0.0001$). For the novel markers, the pooled AUC for single was also significantly lower compared to novel multi-marker panels ($p<0.0001$).

Conclusions

Multi-marker panels demonstrate significantly higher pooled AUC values than single markers. Multi-marker panels containing CA19-9 exhibit the most promising pooled AUC value. These results suggest that CA19-9 may be best used as an addition to a panel of markers rather than alone, and that multi-marker panels generate the most robust results in blood-based PDAC diagnosis.

ABSTRACT 32 (21W118)

The patient experience and clinical efficacy of a novel virtual C13UBT service at an Irish tertiary referral center during the Covid 19 pandemic.

Author(s)

S.Sihag, E.Omallao, S.Semenov, E.M.McCarthy, N.Breslin, A. O'Connor, B.Ryan, S.O'Donnell, D. McNamara

Department(s)/Institutions

Gastroenterology Department, Tallaght University Hospital.

Introduction

UBT service stopped abruptly in Ireland in March 2020 during first wave of COVID-19 due to being aerosol generating procedure with high risk of transmission. To maintain a non-invasive diagnostic option for H.pylori testing we developed a novel virtual test. "C13 UBT At Home", which is performed by patients at home with step by step instructions involving live video conference interaction between the patients and technicians.

Aims/Background

To determine the acceptability and the accuracy of the novel C13 UBT At Home service.

Method

Patients on waiting list were invited to undergo C13 UBT At Home. Participants were pre assessed remotely and technical aspects (internet, smart phone or laptop requirements), navigation through the video call system "attendanywhere" were discussed. Suitable patients collected a Home UBT kit and feedback questionnaire from a drop off point a week prior to their scheduled appointment. The test performed as standard by the patient at home with live interaction for all active steps. Patients requested to fill in a feedback questionnaire which included 6 questions covering pre procedure, procedure and post procedure domains. In addition to patient satisfaction, positivity rate, sample error rate and activity numbers were compared between UBT at home and a standard UBT cohort which was reinstated in 2021.

Results

: 300 patients were enrolled, mean age 41 years (range 7-85), 59% Female. Overall response 96% (288). 96% (285) rated the entire UBT at home process as either excellent or good. Accuracy between UBT tests was similar: positivity rate 23% (69/299) versus 22% (74/326), sample error rate 0.33% (1/300) versus 0.6% (2/326) for the "UBT at home" and standard tests respectively.

Conclusions

UBT at home is possible and acceptable to patients with equivalent accuracy to standard UBT and should be continued to improve patient choice and satisfaction.

ABSTRACT 33 (21W130)**Ambulatory 24-hour pH & Impedance Measures Correlate Poorly With Extra-oesophageal Symptoms of GORD****Author(s)**

B. Nolan, L. Barry, D. Houlihan, L. Jackson, W. Stack

Department(s)/Institutions

Department of Gastroenterology & Gastro-intestinal Physiology, Bon Secours Hospital, Cork and UCC.

Introduction

Heartburn and regurgitation due to gastro-oesophageal reflux disease (GORD) affects 20-40% of adults. Atypical/extra-oesophageal GORD symptoms include cough, non-cardiac chest pain, pharyngeal discomfort, dysphagia and globus. 2019 BSG guidelines strongly support reflux monitoring with pH/Impedance in investigating extra-oesophageal GORD symptoms.

Aims/Background

To assess the correlation between atypical symptoms and abnormal 24-hour pH monitoring/Impedance results.

Method

We reviewed 24-hour ambulatory pH and impedance studies in 116 consecutive patients (52M, 64F) attending our GI Physiology Laboratory (February-August 2021). 45 patients (19M, 26F) presented with primarily extra-oesophageal GORD symptoms. We compared reflux parameters of patients with typical GORD symptoms versus extra-oesophageal symptoms.

Results

45/116 patients (38.7%) presented with atypical GORD symptoms (57% female, age \bar{x} =54.1). Pharyngeal discomfort (36.6%), Cough (24.4%), and chest pain (24.4%) accounted for most atypical symptoms. Atypical/extra-oesophageal reflux presentations had a DeMeester score \bar{x} =6.94±(6.8) (normal <14.7), versus typical/oesophageal symptoms \bar{x} =15.96±(15.28). 8.89% of atypical patients had abnormal DeMeester scores (45% in typical/oesophageal presentations). 11.1% with atypical reflux presentation had abnormal no. of reflux events using impedance values, versus 38% for typical/oesophageal presentations. Of extra-oesophageal symptoms, pharyngeal discomfort had the highest proportion of abnormal results (18.8%) followed by globus (16.7%), chest pain (14.3%) and cough (11.1%). Atypical/extra-oesophageal reflux presentation had a total acid exposure time/(AET) \bar{x} =2.27%±(2.04%) versus typical/oesophageal symptoms \bar{x} =5%±4.21% (Abnormal= >4.2%), Chi-Square displayed strong association between typical/oesophageal symptoms and abnormal DeMeester score (p=.001)(Cramer's V=0.381) and abnormal AET (p=.001)(Cramer's V=0.305).

Conclusions

Abnormal 24-hour pH/Impedance measures correlated poorly with atypical reflux symptoms in our patients. Pharyngeal discomfort was the extra-oesophageal symptom most likely to yield abnormal results.

ABSTRACT 34 (21W111)**Review of aetiology, home support and opiate use in parenteral nutrition patients in Northern Ireland (2021)****Author(s)**

R. Murray, G Turner, G Rafferty, R Smyth.

Department(s)/Institutions

Intestinal failure unit Belfast City Hospital

Introduction

Review of aetiology, home support and opiate use in parenteral nutrition patients in Northern Ireland (2021)

Aims/Background

A list of patient names were retrieved from nutrition nursing records and from excel spreadsheets created by other intestinal failure medical staff previously. Data on aetiology and opiate use was then extracted from clinic letters from the electronic care record and also provided by the nutritional nursing team on home PN support for current and previous patients. Comparisons were made with point prevalence data from March of 2001 and 2011 provided in spreadsheets that were created for previous similar audits.

Method

A list of patient names were retrieved from nutrition nursing records and from excel spreadsheets created by other intestinal failure medical staff previously. Data on aetiology and opiate use was then extracted from clinic letters from the electronic care record and also provided by the nutritional nursing team on home PN support for current and previous patients. Comparisons were made with point prevalence data from March of 2001 and 2011 provided in spreadsheets that were created for previous similar audits.

Results

Currently (2021) we have 40 patients receiving home parenteral nutrition. The leading aetiology of disease is mesenteric ischaemia (40%), followed by Crohn's disease (30%), surgical complications (7.5%), radiation (5%), trauma (5%), functional (5%), miscellaneous (7.5%) (conditions include post-whipples for chronic pancreatitis, gut dysmotility). This is in comparison to 2011 when there was 35 patients on HPN. Mesenteric ischaemia was the most common aetiology (31%), followed by Crohn's (29%), and surgical complications (20%) third. In 2001 there were only 7 patients on TPN. Crohn's was the most common (43%) aetiology, followed by miscellaneous disorders (volvulus, familial idiopathic intestinal pseudo-obstruction, post renal transplant lymphoproliferative disorder, small bowel resection for carcinoid tumour) 33% of HPN patients are using opiates currently. This is in comparison to 2011 when 26% were using opiates, and in 2001 when 0% were using opiates, however 3 patient's records were insufficient from 2001 23% of HPN patients currently require district nursing support with HPN, with one patient using family support. This in comparison to 2011 when also 23% required district nursing support HPN, with two patients using family support. In 2001, 28% required district nursing support for HPN. From our cohort of HPN patients in 2021, 54 is the average age of patients when first commenced on parenteral nutrition. 93% have more than one comorbidity. In 2011, 49 was the average age at presentation, and 63% had more than one comorbidity.

In 2001, 46 was the average age at presentation, and 29% had more than one comorbidity.

Conclusions

Mesenteric ischaemia and Crohn's remain the most common causes of intestinal failure over the past ten years. The increase in opiate use might be secondary to the increasing number of TPN patients who have multiple comorbidities, and might also be reflected by the increase in age at presentation. There has been a slight increase in HPN patients requiring district nursing support, again possibly reflected by the increase in patients with multiple comorbidities and age at presentation.

ABSTRACT 35 (21W114)

Intestinal Methanogen Overgrowth (IMO) In An Irish Setting

Author(s)

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Department(s)/Institutions

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Introduction

Small intestinal bacterial overgrowth (SIBO) is a condition in which the small bowel is colonized by excessive microbes that are normally present in the colon. Recent guidelines (2020) from the American College of Gastroenterology on SIBO have proposed new nomenclature for those predominantly producing methane "Intestinal Methanogen Overgrowth". These guidelines recommended testing for methane using glucose or lactulose breath tests to diagnose the overgrowth of methane-producing organisms (IMO) in symptomatic patients with constipation.

Aims/Background

To assess the prevalence of intestinal methanogen overgrowth in those attending our Hydrogen and Methane Breath Testing Clinic

Method

We reviewed Small Bowel Bacterial Overgrowth studies in 121 consecutive patients (93F, 28M) attending our GI Physiology Laboratory (February-September 2021).

Results

36 (29.7%) patients were found to have abnormal Hydrogen and Methane Breath Test. 88.8% of the abnormal studies were reported as Methanogenic Intestinal Overgrowth (the presence of methane levels of >10 ppm at any time during the breath test). In those patients with abnormal IMO, 37.5% reported Constipation, 46.87% reported bloating, 9.37% Diarrhoea & 6.25% abdominal pain as their primary symptom

Conclusions

Methanogenic Intestinal Overgrowth is a more common finding in those attending for Hydrogen and Methane Breath Testing in our cohort of patients than we would have anticipated. It is most common in those with bloating and constipation as primary symptom. Further

studies will be required to determine significance of same and in particular to determine whether measures to reduce levels of IMO will be successful in terms of bacterial load and symptom improvement.

ABSTRACT 36 (21W158)

Decoding Early-Life Stress-Induced Comorbidities: Susceptibility To Different Domains Of Altered Microbiota-Gut-Brain Axis Signalling

Author(s)

V. Caputi (1,2), L. Wilmes (1,2,3), T. F. S. Bastiaanssen (1,2), J.M. Collins (1,2), G. Clarke (1,3), J.F. Cryan (1,2), S.M. O'Mahony (1,2).

Department(s)/Institutions

1. APC Microbiome Ireland, University College Cork, Cork, Ireland 2. Department of Anatomy and Neuroscience, University College Cork, Cork, Ireland 3. Department of Psychiatry and Neurobehavioural Science, University College Cork, Cork, Ireland.

Introduction

Early life stress (ELS) perturbs the microbiota-gut-brain axis increasing the risk of developing visceral pain associated with mood disorders in adulthood. However, the biomolecular mechanisms are still unclear.

Aims/Background

To assess the mechanistic basis for susceptibility or resilience to gut-brain dysfunction induced by ELS in a rat model of maternal separation (MS).

Method

Male and female Sprague Dawley rat neonates were subjected to MS 3h/day (9 am-12 pm) for 11 days from postnatal day (PND) 2 to 12. In non-separated (NS, N=30 rats[4 rat/litter]) and MS (N=90 rats[4-5 rat/litter]) rat adult offspring (PND60) visceral sensitivity was assessed using colorectal distension (CRD). Forced swim test (FST) was performed to analyse depressive-like behavior. The behavioral data were combined in a two-step cluster analysis to identify natural groupings within the dataset. Microbiome changes (16S-rRNA sequencing) and metabolic profile will be assessed in stool collected from rat offspring before weaning.

Results

Female rats were more susceptible to visceral hypersensitivity ($p < 0.01$) than males. During FST, MS male rats showed an increase in depressive-like behaviour compared to NS rats $p < 0.001$. According to the cluster analysis, female and male MS rats were stratified into four distinct behavioral phenotypes in response to ELS: resilient; depressive-like behavior; visceral hypersensitivity; or a comorbid phenotype.

Conclusions

Our study shows for the first time the presence of gut-brain behavioral phenotypes resilient or susceptible to ELS-induced visceral hypersensitivity and depression. Further analyses will determine whether the microbiome in early life is predictive for the individual phenotypes in adulthood.

ABSTRACT 37 (21W199)**Dietary Education and Intervention is Associated with Improvements in overweight patients with Undifferentiated Irritable Bowel Syndrome****Author(s)**

A Boland¹, C Walker¹, S Gill^{1,2}, E Neary^{1,2}, S Anwar¹, N Breslin¹, D McNamara¹, A Fox¹, S O'Donnell¹, B Ryan¹, A O Connor¹

Department(s)/Institutions

1. Department of Gastroenterology, Tallaght University Hospital, Tallaght, Dublin 24
2. Department of Clinical Nutrition and Dietetics, Tallaght University Hospital, Tallaght, Dublin 24

Introduction:

Irritable Bowel Syndrome (IBS) affects between 7-20% of the population in Europe and is the most common reason for attendance to gastroenterology clinic. Obesity affects 23% of adults in Ireland and 37% are overweight. Dietary intervention is a cornerstone of treatment for both IBS and overweight. In our hospital a dietician led clinic was set up to manage IBS patients.

Aim:

To assess the response of overweight and obese patients to dietitian led treatment of IBS.

Method:

A cohort cluster analysis of a dietician database of patients who were referred for management of their IBS and were assessed for success based on Global Symptom Question (GSQ) with either 1st line (basic education and advice) or second line (specific tailored dietary intervention, either Low Fibre Diet (LFD) or low-FODMAP).

Results:

Overall, 256 were analysed and 76%(n=195) achieved success. Of these patients, 55% (n=142) found success with first line education and advice. , 46% (n=53) of those referred for 2nd line tailored dietary interventions responded. Data on Body Mass Index (BMI) was available on 85 patients.

The results are outlined in Table 1

BMI		Response to First Line Treatment	Response to Second Line Treatment
<25	24 (36%)	15/24 (63%)	4/9 (17%)
25-30	22 (26%)	9/22 (41%)	10/13 (77%)
>30	32 (38%)	11/32 (34%)	12/21 (57%)

Conclusion:

Patients of normal weight responded very well to basic first line dietary education and advice. Those in the overweight or obese category responded poorly to first line measures but very well to tailored dietary therapy. This may have significant service and manpower planning implications for the organisation of services by triaging patients to the dietary managements that are most likely to achieve response. As dietary management for overweight and obese patients can also improve cardiovascular and metabolic health, there is significant opportunity for dietitians functioning within gastroenterology multi-disciplinary teams to improve models of care here.

ABSTRACT 38 (21W172)**Quality Improvement Initiative for Iron Deficient and Restrictive Anaemia Management In The Frail Older Person****Author(s)**

R Varley, I Pillay

Department(s)/Institutions

Department of Gastroenterology, Tipperary University Hospital, Clonmel, Co Tipperary Department of Geriatric Medicine, Tipperary University Hospital, Clonmel, Co Tipperary

Introduction

A previous study in this centre showed low rates of classification and correction (21%) of IDA in the frail older person. Non-invasive investigation to outrule coeliac disease and correction of IDA should be standard practice for all patients regardless of frailty.

Aims/Background

To improve the classification and correction of IDA in the frail older person.

Method

We modified an inter-disciplinary Comprehensive Geriatric Assessment (CGA) to include haemoglobin, MCV, Iron studies and coeliac screening. A prospective study was conducted over a 9-week period from July 2021 to September 2021. Clinical and biochemical data was retrieved from patient notes and the electronic record of patients undergoing CGA. Data was entered to an anonymised database and analysed using descriptive statistics.

Results

73 patients were included. The median age was 84(69-96) years. 60% were female (n=44). Median Clinical Frailty Score (CFS) was 6 (± 1). 40 (53%) patients had anaemia with a median Hb of 10.6 (7.0-12.6). The median age was 85(69-95) years, 29 (62%) were female and median CFS was 7(± 1.00712) 27 patients had evidence of Iron deficiency anaemia (N=9) or iron restricted anaemia(IRA). Three patients had concomitant folate and B12 deficiency. Coeliac screen was completed in 13 patients (48% vs 22.7% in prior study). Iron was replaced in all 22 reviewed patients (100% vs 21.3%)

Conclusions

Modification of an inter-disciplinary CGA resulted in a five-fold improvement in the correction of IDA and two-fold improvement of coeliac screening. Implementation of an algorithm to allow an inter-disciplinary team to request coeliac antibodies will be developed to standardise practice.

ABSTRACT 39 (21W186)**An Audit Cycle on Deprescribing of Proton Pump Inhibitors in a tertiary healthcare setting.****Author(s)**

M. Dzulkarnain, M. Hasnol, H. Ulaganathan, A. Yadav , E. Slattery

Department(s)/Institutions

Department of Gastroenterology, Galway University Hospital, Galway.

Introduction

Proton Pump Inhibitors (PPIs) have been the mainstay treatment for Gastroesophageal Reflux Disease (GORD) and other medical conditions. Although the indications of PPIs are well known by Healthcare Professionals (HCP), the opposite applies to indications of deprescribing PPIs.

Aims/Background

The aim of this audit was to evaluate appropriate deprescribing of PPIs in accordance with Health Service Executive (HSE) guidelines.

Method

This audit was completed in three phases. In the Pre-Intervention phase, data was collected on 115 patients admitted to medical wards. This data was then analysed as per HSE deprescribing guidelines. Intervention phase entailed educating 84 doctors who participated via online questionnaires on deprescribing guidelines. And lastly in the Post-Intervention phase, data was collected in a similar fashion to phase 1 on 10 randomly allocated patients.

Results

73% of inpatients were on PPI. The most common indication for PPI initiation was treatment of GORD (33%) followed by Unknown Indication(s) (27.4%). Only 19% patients had previous gastroscopy. An overwhelming majority of patients were chronic PPI users, with 68% using it for more than 52 weeks. Most of the patients currently experienced no upper GI symptoms (89.3%). Overall, 70.2% of PPI users were candidates for deprescribing. All of the followed-up patients (n = 10) in the final phase were not deprescribed.

Conclusions

This audit demonstrated that the use of PPIs is widespread in tertiary care settings, however the practice of deprescribing is uncommon. There is potential to close this knowledge gap and in turn improve patient care by reducing the side-effects of chronic PPI use. Unfortunately, our intervention resulted in no change in the current practice of not deprescribing PPIs. Interventions in the form of pharmacist-led deprescribing of PPIs may possibly result in better adherence to deprescribing guidelines

ABSTRACT 40 (21W196)**An evolving resistant pandemic. Rising community H. Pylori resistance to Clarithromycin; an observational study.****Author(s)**

Armstrong P, Butler T.J, Smith SI, McNamara D.

Department(s)/Institutions

Gastroenterology Department, Tallaght University Hospital, Dublin, Ireland Trinity Academic Gastroenterology Group, Dublin, Ireland

Introduction

Clarithromycin based triple therapy is commonly prescribed as first line treatment of H. pylori in Ireland. Worldwide, increased clarithromycin resistance has been reported. It is unclear whether this is due to personalised antibiotic exposure inducing resistance over time, or endemic community prevalence of a resistant strain of H. pylori, from youth. We hypothesise that older age cohorts would have had more exposure to antibiotics and that increased resistance rates with age would support a developed resistance model.

Aims/Background

To identify resistance rates to clarithromycin based triple therapy and to compare rates according to age.

Method

All patients referred for their first post eradication urea breath test, having received clarithromycin based triple therapy in 2020 were identified from a database. A positive UBT, delta >4 was considered a surrogate marker of clinical resistance.

Results

In all 166 patients were identified. The overall clarithromycin resistance rate was 25%. We found no statistical difference in resistance rates across ages (Welch's t-test p=0.24) or between age groups, divided into decades analysed via two way ANOVA. Dividing the cohort into those aged less than 45 and greater than 45, the resistance rates were also similar.

Conclusions

Across adult age groups, clarithromycin resistance has reached alarmingly high levels. In addition it suggests a high community prevalence of clarithromycin resistant H pylori. The authors propose that Clarithromycin based triple therapy should no longer be used without sensitivity testing as treatment for H pylori in Ireland.

Abstract Submissions selected for Best Clinical Abstracts 2021

Thursday 2nd December

Abstract No.	Ref:	Title	Author	Time
41	21W159	The DUBLIN Score is a Useful Tool for Predicting Disease Course in Patients with Ulcerative Colitis	Jayne Doherty	12.00
42	21W138	Community NAFLD screening programme in patients with T2DM indicates high burden of undiagnosed liver disease.	Emma McCormick	12.10
43	21W122	The true false negative rate of colon capsule endoscopy (CCE) is low	Serhiy Semenov	12.20
44	21W115	Reduced completion rates for inpatient versus outpatient colon & pan-intestinal video capsule endoscopy; a nested case-control study.	Charlene Deane	12.30
45	21W140	A Prospective Comparison of Two Headed and Single Headed Capsules for the Investigation of Suspected Small Bowel Bleeding. Are Two Heads Better Than One?	Eilís McCarthy	12.40
46	21W132	The Correlation Between Capsule Endoscopy and Subsequent Device Assisted Enteroscopy Findings of Small Bowel Vascular Lesions	Caroline Walker	12.50

CLINICAL ORAL PRESENTATIONS

ABSTRACT 41 (21W159)

The DUBLIN Score is a Useful Tool for Predicting Disease Course in Patients with Ulcerative Colitis

Author(s)

J Doherty 1, Neil O Morain 1, F O'Hara 2, R Stack 1, R Corcoran 3, Y Bailey 2, D McNamara 2,4, D Kevans 3,4, G Doherty 1.

Department(s)/Institutions

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Introduction

The DUBLIN (Degree of Ulcerative colitis Burden of Luminal Inflammation) is a novel simple clinical score of inflammation in patients with Ulcerative Colitis (UC) which can be used easily in outpatients and at the bedside.

Aims/Background

We sought to validate the clinical utility of scoring UC inflammatory burden at diagnosis in predicting disease outcomes using the DUBLIN score (DS).

Method

We performed a multicentre retrospective study of patients recruited to the Genuity Medicine IBD research project at three centres. DS at diagnosis was calculated based on disease extent and endoscopic severity. Study outcomes were need for immunomodulators and/or biologic therapy and need for surgery. We also examined the association between DS and FCP, albumin and C-reactive protein.

Results

679 patients with confirmed UC were identified. 291 had data allowing calculation of DS at diagnosis (median age 38.9 years, 53% male). Median DS was 4 [1-9]. 122 patients were treated with biologic therapy during follow-up. Median DS at diagnosis was significantly higher in patients requiring biologic therapy compared to those not requiring biologic therapy [4 versus 3, $p < 0.001$]. Of patients requiring biologic therapy patients with a DS > 3 had a significantly shorter time on 1st biologic therapy [2.1 versus 3.9 years, $p = 0.005$]. There was no difference in median DS dependent on immunomodulator use. Similarly median DS at diagnosis was significantly higher in patients requiring colectomy compared to those not requiring colectomy [6 versus 4, $p = 0.001$]. There was a weak positive correlation between both DS and faecal calprotectin [correlation coefficient 0.27, $p = 0.001$] and C-reactive protein [correlation coefficient 0.7, $p = 0.01$] and a weak negative correlation between DS and albumin level [correlation coefficient -0.22, $p = 0.04$].

Conclusions

Our study validates the clinical utility DS is an accurate clinical tool at diagnosis and during a patients' disease course for identifying disease burden. A higher DS correlates with an increased need for biologic therapy, need for colectomy and increased biomarkers of

disease activity. This is a useful tool for day-to-day use in clinical practise providing personalised treatment decisions for patients with UC.

ABSTRACT 42 (21W138)

Community NAFLD screening programme in patients with T2DM indicates high burden of undiagnosed liver disease.

Author(s)

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Department(s)/Institutions

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Introduction

NAFLD is the most common liver disease in Western countries, affecting 1 in 4 adults. Hepatic fibrosis is an important predictor of liver-related morbidity and premature mortality. Vibration-controlled transient elastography (VCTE) is a validated non-invasive test with NPV $>90\%$ for detection of advanced fibrosis/cirrhosis but largely confined to specialist centres.

Aims/Background

To assess the feasibility of VCTE as a screening method to detect hepatic fibrosis in patients with risk factors for NAFLD in a community healthcare setting.

Method

206 patients (112 female-94 male) with risk factors for NAFLD were identified via dispensing records in pharmacies and invited to register. VCTE assessments were performed in 4 pharmacies between June-July 2021 and results sent to patients' GPs. Patients with liver stiffness measurements (LSM) >8.2 kPa were referred to a specialist Hepatology clinic.

Results

The median age was 63 years (range 27-84). 88% of patients had T2DM and 53% had BMI ≥ 30 . The median CAP was 291dB/m (range 160-400) and 45% of patients had CAP ≥ 300 dB/m. The median LSM was 5.8kPa, and 31% patients had LSM ≥ 7.1 kPa. 12% had LSM ≥ 9.7 kPa, 6.7% had LSM ≥ 12.5 kPa. Only 19% of patients had both a normal CAP and LSM.

Conclusions

This is the first study to assess VCTE screening for hepatic fibrosis beyond traditional healthcare settings, and demonstrates that community-based risk-stratified screening leads to earlier identification of patients with liver fibrosis. Community pharmacy is an accessible healthcare setting in which access to non-invasive assessments of hepatic fibrosis outside of the hospital setting could be offered with potential cost savings to the healthcare system.

ABSTRACT 43 (21W122)**The true false negative rate of colon capsule endoscopy (CCE) is low.****Author(s)**

Semenov S*, Ismail MS*, O'Donnell S, O'Connor A, Breslin N, Ryan B, McNamara D*

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Introduction

CCE is an established diagnostic tool for colonic pathology. There is a lack of clinical data on true capsule false negative (FN) rates.

Aims/Background

To assess the causes of missed pathology in a CCE cohort.

Method

CCEs with at least one colonoscopy within 18 months were identified from a 9-year database. Missed pathology on index capsules was identified by comparing with colonoscopy. Indication, bowel preparation, missed lesion/pathology characteristics were collated. These studies were re-read by experts unblinded to CCE and colonoscopy findings. On re-reading, newly identified lesions/pathology, verified by an expert panel, were categorised as reader error, the remainder were considered true FN events.

Results

Of 532 CCEs, 210 (39%) had a comparative colonoscopy (mean interval 4 months) and 49 (23%) had missed pathology; 30/49 (61%) reaching the colonic section with missed pathology. Of 30 discrepant studies, 24 (80%) had adequate preparation. Indications included 14 (47%) polyp surveillance, 12 (40%) GI symptoms, 3 (10%) IBD and 1 (3%) screening. Missed pathology included diminutive polyps 18 (60%), polyps ≥ 6 mm 8 (27%), inflammation 4 (13%); they were evenly distributed (14 right and 16 left colon) and 18/26 (69%) were adenomas. No cancers were missed. Reader error accounted for 23/30 (77%) cases, while 7/30 (23%) were true FN events. Missed pathology was due to true capsule error 7/210 (3.3%), reader error 23/210 (11%), incomplete studies 19/210 (9%). Reader error was more likely than capsule error, OR 3.2 ($p=0.018$, 95%CI 1.22-8.80).

Conclusions

Our study suggests a low true CCE FN rate. Reader error accounts for most missed pathology.

ABSTRACT 44 (21W115)**Reduced completion rates for inpatient versus outpatient colon & pan-intestinal video capsule endoscopy; a nested case-control study.****Author(s)**

Deane Charlene 1&2, Walker Caroline 1, Ryan B1, O'Connor A1, O'Donnell S1, Breslin N1, McNamara Deirdre 1&2

Department(s)/Institutions

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Gastroenterology Group, School of Medicine, Trinity College Dublin, Ireland

Introduction

Inpatient video capsule endoscopy (VCE) is a regular request to gastroenterology services. Limited data exists comparing the effect of admission status on the quality of VCE.

Aims/Background

This study aimed to compare the quality of inpatient versus outpatient CCE(colon capsule endoscopy) & PIC(pan-intestinal capsule) studies & factors affecting outcomes.

Method

We performed a retrospective nested case-control study. Patients were identified from a VCE database. Procedures were performed using PillCam Colon2 capsules using a standard bowel prep & booster regimen. For PICs the small bowel sleep mode was manually deselected. Patients had a transit assessment at 30 minutes & received a prokinetic if delayed. Basic demographics & key outcome measures were identified from reports. Outcomes were compared between groups using a Chi2 test. Relevant ORs & NNT were calculated as appropriate.

Results

Overall, 105 patients were included, 35 inpatients (CCE (n=6), PIC (n=29)) & 70 controls. Gender profiles were similar, inpatient cases were older & more frequently had PCI procedures. The completion rate was significantly better in outpatients (OR 3.0, NNH 3). Gender & age did not affect completion rates. Completion rates & prep were similar in both procedures. The diagnostic yield for inpatient and outpatient VCE's were similar; 80% & 74%. More inpatients were referred for bleeding with a similar yield in inpatients & outpatients 43% (n=12) and 30% (n=7).

Conclusions

Inpatient VCE has a clinical role particularly in the setting of acute bleeding however, practitioners should be aware of the increased risk of incomplete studies in inpatient capsules & mitigate against this where possible.

ABSTRACT 45 (21W140)**A Prospective Comparison of Two Headed and Single Headed Capsules for the Investigation of Suspected Small Bowel Bleeding. Are Two Heads Better Than One?****Author(s)**

E. McCarthy 1, S. Sihag 1, C. Deane 1, C. Walker 1, S. Semenov 1, B. Ryan 1, N. Breslin 1, S. O'Donnell 1, A. O'Connor 1, D. McNamara 1, 2

Department(s)/Institutions

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Introduction

Capsule endoscopy is now the first line investigation for suspected small bowel (SB) bleeding. Recent evidence suggests diagnostic

yield for SB pathology may be higher for tailored double headed (DH) SB capsules. Whether other forms of bidirectional capsules offer a similar advantage is less clear.

Aims/Background

To compare the efficacy of single headed (SH) SB capsule with DH colon capsule for detecting SB pathology in suspected SB bleeding.

Method

Single centre prospective comparison study over 12 month period. Patients referred with overt or suspected SB bleeding. First 6 months - SB3 Medtronic SB capsule (SH) and second 6 months- PillCam Colon 2 Medtronic capsule (DH). Findings were compared between SH and DH capsules using a Fishers exact test and t-test as appropriate, a $p < 0.05$ was considered significant.

Results

201 subjects, mean age 61.8 years, 90 (45%) male. Majority referred with occult bleeding, 153 (76%). 181 (90%) capsules complete, 114 (57%) positive. DH and SH capsule used in 100 and 101 cases, respectively. Diagnostic yield was similar - DH 53% (n=53), SH 60% (n=61) and higher for SH compared to DH studies in overt bleeding, 22/26 (85%) versus 11/22 (50%) $p < 0.01$, NNT 3 (1.7-10.5), 95% CI 9.54 -59.7. SH capsules more frequently detected SB inflammation, 27 (27%) versus 9 (9%), $p < 0.01$, NNT 6 (3.4-12.4), 95%CI 8.0 – 29.0.

Conclusions

No difference in overall performance between both capsules. SH capsules performed better in patients with overt bleeding and appears to be more sensitive for SB inflammation. This supports the continued use of standard SB SH capsules for investigation of SB bleeding.

ABSTRACT 46 (21W132)

The Correlation Between Capsule Endoscopy and Subsequent Device Assisted Enteroscopy Findings of Small Bowel Vascular Lesions

Author(s)

C Walker, C Deane, J Doran, F O'Hara, S Anwar, R Ballester, B Ryan, A O'Connor, S O'Donnell, N Breslin, D McNamara

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Introduction

Capsule endoscopy (CE) enables visualisation of small bowel mucosa and in many cases identification of a bleeding source. Following identification, device assisted enteroscopy (DAE) allows for confirmation of findings and therapeutic intervention if required.

Aims/Background

To determine the correlation between CE vascular findings and subsequent DAE.

Method

A retrospective observational study of patients with small bowel vascular lesions and their subsequent findings on DAE (2018-2020). Patients were identified on a CE database and cross-referenced against an endoscopy database. CE findings were reviewed and the most significant vascular lesion was classified by Yano-Yamamoto and Saurin classifications. The yield on DAE, lesion characterisation, and therapeutic intervention was recorded. Findings were compared and Cohen's kappa coefficient was calculated.

Results

52 patients were included; 60% (n= 31) were men. The median age was 70 years. The diagnostic yield for vascular lesions on DAE with a preceding positive CE was 94% (n=49). There was substantial correlation between findings on CE and DAE with respect to: - Detection of angiodysplasia (K=0.683). - Lesion significance, P2 CE and DAE, 94% and 88% respectively, K=0.639. - Number of lesions, single K=0.785, few K=0.796, and multiple K=0.809. The interval time between CE and DAE, ($\leq 90 / > 90$ days), did not affect agreement on identification of lesions 93% and 95%, or their significance 87% and 91% respectively.

Conclusions

Anterograde DAE has a high diagnostic yield in patients with vascular lesions on CE. CE can accurately predict lesion type, number, location, and relevance. CE is recommended before DAE to characterise bleeding source and select patients in need of therapeutic intervention.

Abstract Submissions selected for Best Scientific Abstracts 2021

Friday 3rd December

Abstract No.	Ref:	Title	Author	Time
47	21W147	Multi-Omic Profiling Of Pancreatic Cyst Fluid For The Identification Of A Novel Biomarker Panel Of Patient Cancer Risk	Laura Kane	10.00
48	21W146	Examining the regulatory impact of epigenetic and transcriptomic changes on anti-TNF α treatment response and disease progression in patients with Ulcerative Colitis	Ololade Lawal	10.10
49	21W177	In silico and in vitro Screening to Identify Lead Hit Compounds Targeting The Key Survival Purine Nucleoside Phosphorylase (PNP) Enzyme of Helicobacter pylori	Thomas J Butler	10.20
50	21W181	Therapeutic targeting of ulcerative colitis ex-vivo colonic explants with novel anti-angiogenic and anti-inflammatory small molecule agents	Padraic McDonagh	10.30
51	21W168	Vedolizumab Treatment of ex-vivo Human Ulcerative Colitis (UC) Explants Results in Altered Secreted Cytokine Profiles	Roisin Corcoran	10.40
52	21W178	Helicobacter pylori Infection Alters Expression of Histone Modification Complex Components	Rebecca FitzGerald	10.50

SCIENTIFIC ORAL PRESENTATIONS

ABSTRACT 47 (21W147)

Multi-Omic Profiling Of Pancreatic Cyst Fluid For The Identification Of A Novel Biomarker Panel Of Patient Cancer Risk

Author(s)

Kane, L.E. (1) Mellotte, G.S. (2) Marcone, S. (1) Ridgway, P.F.(3) Conlon, K.C. (4) Ryan, B.M. (2) Maher, S.G. (1)

Department(s)/Institutions

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Introduction

Pancreatic cancer was responsible for almost 500,000 deaths globally in 2020 according to GLOBOCAN. Pancreatic cystic lesions are fluid-filled protrusions either on or inside the pancreas, which can either be benign or pre-malignant. Current guidelines to stratify patients based on risk are imperfect.

Aims/Background

Multi-omic profiling of the fluid within pancreatic cysts could aid in the identification of a novel biomarker panel of patient cancer risk.

Method

Pancreatic cyst fluid (PCF) was collected from 40 patients by EUS-FNA. Patients were stratified using the 2018 European evidence-based guidelines into low-risk, high risk and no-risk or pseudocyst. PCF was sonicated and subsequently processed using SP3 paramagnetic beads prior to LC-MS. MS-generated data were analysed in Perseus (v1.6.13.0). HTG microRNA whole transcriptome sequencing was run on whole PCF with 3 post-sequencing quality control metrics. MiRNA sequencing data were analysed using HTG EdgeSeq Reveal (v3.1.0).

Results

MS-analysis of PCF samples revealed eight proteins to be significantly upregulated in high-risk PCF compared to low-risk ($p < 0.05$, FDR=0.05, $s_0 = 0.1$). Whole transcriptome sequencing revealed forty-six miRNAs were significantly upregulated in high-risk PCF compared to low-risk (adj- $p < 0.05$, FDR=0.05, $s_0 = 0.1$). Differentially expressed proteins and miRNAs are currently being technically validated by ELISA and qPCR respectively. They will then be examined in matched patient serum with the aim of generating a less invasive predictive biomarker panel for patient risk.

Conclusions

Multi-omic profiling of pancreatic cyst fluid provides an abundance of potential biomarkers of patient risk. Interrogation of these factors in patient serum could present a novel blood-based multi-marker panel for less invasive patient risk stratification.

ABSTRACT 48 (21W146)

Examining the regulatory impact of epigenetic and transcriptomic changes on anti-TNF α treatment response and disease progression in patients with Ulcerative Colitis

Author(s)

Ololade Lawal¹, Roisin Stack², Ciara Egan², Miriam Tosetto², Ciaran McDonnell¹, Gregory Yochum^{3,4}, Walter Koltun³, Karen Boland⁵, Kieran Sheahan^{2,6}, Glen Doherty², Sudipto Das¹

Department(s)/Institutions

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Introduction

Ulcerative colitis (UC) is a chronic inflammatory condition characterized by significant morbidity and escalating economic costs. Effective patient management is severely hampered by a lack of unambiguous molecular biomarkers that can predict response to anti-TNF α treatment such and/or disease progression.

Aims/Background

Here, we used a multi-omic approach applied to mucosal biopsies derived from a large clinical cohort of patients with mild-to-moderate and severe UC, with the aim of identifying various regulatory factors that orchestrate treatment response and disease severity in these patients.

Method

Analysis of RNA microarray data from published data sets as well as RNAsequencing data generated from mild-to-moderate (n=20) and severe UC patients (n=20) was carried out. In addition, targeted DNA methylation profiling was carried out for progressors (defined as patients escalated to immunomodulators) as well as responders and non-responders to anti-TNF α treatment.

Results

First, differential gene expression analysis between responders and non-responders to Infliximab (anti-TNF α) revealed that both up- / down-regulated genes in responders were intricately regulated by "master regulators" (MTRs) including FGFR3. Moreover, we show that these MTRs play a pivotal role in regulating gene expression through a complex signalling network mediated by transcription factors (TFs). These results for the first time provide evidence of impact of MTRs and TFs on genes involved in differential response to anti-TNF α agents in patients with UC. Next, analysis of targeted DNA methylation profiling data from of progressors vs non-progressors and responders vs non-responders enabled identification of a wide-spread DNA methylation alterations at regulatory regions such as promoters and enhancers in these samples. Moreover, we show distinct significant methylation differences between UC patients who progress in their disease course leading to treatment with anti-TNF α agents vs. patients who are on maintenance treatment. Indeed,

similar differences was also observed between responders and non-responders of anti-TNF α agents.

Conclusions

Taken together, our preliminary results clearly demonstrate the potential of transcriptomic and epigenetic alterations that impact treatment response and disease severity and therefore could ultimately enact as predictive biomarkers as well as novel therapeutic targets for patients with UC.

ABSTRACT 49 (21W177)

In silico and in vitro Screening to Identify Lead Hit Compounds Targeting The Key Survival Purine Nucleoside Phosphorylase (PNP) Enzyme of Helicobacter pylori

Author(s)

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Department(s)/Institutions

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Introduction

Resistance to many of the antibiotics used to treat *Helicobacter pylori* (HP) infection is on the rise. Indeed, the WHO has included *H. pylori* on their priority list of antibiotic-resistant bacteria to guide research and development into novel antimicrobials. To this end, a virtual screen (VS) of 550k+ compounds was carried out against the purine nucleoside phosphorylase enzyme (PNP), a key survival enzyme of HP.

Aims/Background

(i) To perform in silico VS to identify new compounds with potential activity against the HP PNP enzyme, (ii) and to test the in vitro antimicrobial activity of the identified compounds.

Method

Using mixed cheminformatics and structural approaches, computational tools were deployed to identify several lead-hits to carry forward to in vitro screening. Lead-hits were tested for antimicrobial efficacy against reference strains (J99 and ATCC60190) and clinical isolates of HP using a broth microdilution approach. Clarithromycin was used as a positive control. Selectivity was established using a viability assay with a stomach epithelial cell line AGS.

Results

5 lead-hits were selected from VS and tested in vitro. All compounds showed antimicrobial activity against the reference strains and both clarithromycin-sensitive and clarithromycin-resistant clinical isolates of HP (MIC₅₀ 4.9 – 51 μ g/mL). 4 compounds had no effect on the viability of human cells showing selective antimicrobial activity against *H. pylori*.

Conclusions

VS provided a cost-efficient method to identify, selective antimicrobial agents for *H. pylori* resulting in the identification of several lead targets that may be further developed to increase selectivity and potency.

ABSTRACT 50 (21W181)

Therapeutic targeting of ulcerative colitis ex-vivo colonic explants with novel anti-angiogenic and anti-inflammatory small molecule agents

Author(s)

P. McDonagh, F. O'Connell, J. O'Connell, R. Argue, R. Corcoran, B. Kennedy, D. Kevans, J. O'Sullivan

Department(s)/Institutions

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Introduction

Pyrazinib (P3) and 1,4-dihydroxy quininib (Q8) display potent anti-inflammatory and anti-angiogenic properties in Zebrafish, colorectal cancer and oesophageal adenocarcinoma models. In this study these novel small molecule agents are assessed in ulcerative colitis (UC)

Aims/Background

Our aim is to evaluate the effects of P3 and Q8 on colonic tissue culture media (TCM) from patients with UC

Method

UC colonic biopsies were cultured with either P3, Q8 or control. Multiplex inflammatory and angiogenic enzyme-linked immunosorbent assay (ELISAs) were performed to evaluate the real time secretion of analytes and compare between treatment and control groups

Results

26 patients with UC participated in the study. P3 and Q8 inhibit inflammatory analytes: TNF- α , IL-2, IL-8, IL-12p70 and IL-13. P3 and Q8 inhibit potent angiogenic molecule VEGF-A. P3 exerts anti-inflammatory effect in biologic exposed patients

Conclusions

Both P3 and Q8 display potent anti-inflammatory and anti-angiogenic properties when used to treat UC colonic explants. Both agents warrant further investigation and may become therapeutic options for patients with UC

ABSTRACT 51 (21W168)

Vedolizumab Treatment of ex-vivo Human Ulcerative Colitis (UC) Explants Results in Altered Secreted Cytokine Profiles

Author(s)

RM. Corcoran, F. O'Connell, J. O'Sullivan, D. Kevans.

Department(s)/Institutions

Department of Gastroenterology, St James's Hospital, Dublin 8, Ireland School of Medicine, Trinity College Dublin Department of Surgery, Trinity Translational Medicine Institute, Trinity College Dublin, St James's Hospital, Dublin 8, Ireland

Introduction

Patient-derived ex-plants have potential for biomarker and therapy discovery. Vedolizumab (VDZ) is a monoclonal antibody targeting α 4 β 7 integrin whose mechanism of action is the reduction of inflammatory mononuclear cell trafficking to the intestinal tract. The association between VDZ exposure and treatment response is unclear

and appears insufficiently explained by serum levels. For this reason it is hypothesised that VDZ may also have effects at the tissue level.

Aims/Background

We aimed to evaluate the effect of VDZ on cytokine secretion profiles in ex-vivo Human Ulcerative Colitis (UC) ex-plants.

Method

Patients with UC, undergoing endoscopy, were prospectively recruited. Endoscopic biopsies were collected and UC ex-plants generated as per previously described methods. UC ex-plants were co-cultured for 24 hours with an IgG control or VDZ. After 24 hours tissue conditioned media (TCM) from UC ex-plants was collected. TCM secreted proteins were quantified using 54 V-plex ELISA (Meso Scale Diagnostics). Secreted cytokine profiles were compared between IgG control and VDZ treated ex-plants.

Results

Thirteen patients with UC were included; age (mean, [range]) 45.8 years [30-78]; 54% male; disease duration (mean, [range]) 8, [1-24] years; 62% of patients were anti-TNF naïve. Baseline total Mayo score (median [range]) was 6 [0-9]; endoscopic Mayo score (median [range]) was 2 [0-3]. Comparing VDZ with control treatment, 5 ex-plant secreted proteins differed significantly. GMCSF, IL-16, IL-22, IL-23 and sVCAM-1 secretion was significantly decreased, $p < 0.03$ for all comparisons.

Conclusions

VDZ treatment of UC ex-plants resulted in a reduction of ex-plant cytokine secretions. These data suggest that VDZ may have additional biological effects at the tissue level.

ABSTRACT 52 (21W178)

Helicobacter pylori Infection Alters Expression of Histone Modification Complex Components

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Introduction

The Polycomb repressive complex 2 (PRC2) tri-methylates and KDM6B de-methylates histone H3 on lysine 27 (H3K27). Aberrant histone methylation is linked to disease.

Aims/Background

Investigate PRC2 and KDM6B expression during *H. pylori* infection.

Method

qPCR was performed to monitor *H. pylori*-mediated changes in expression of PRC2 components *EZH2*, *EED* and *SUZ12* in MKN45 and AGS gastric epithelial cells and stomach biopsies from *H. pylori*-infected and uninfected patients. Expression of PRC2 components and KDM6B were measured in THP-1 macrophages infected with live or heat-inactivated *H. pylori*. Accumulation of RNA polymerase II (PolII) and H3K27me3 at gene loci was measured by chromatin immunoprecipitation (ChIP)-qPCR. The Student's T-test and Mann-Whitney U-test identified significance ($P < 0.05$) for cell culture and tissue results, respectively.

Results

H. pylori decreased expression of *EZH2*, *EED* and *SUZ12* in AGS and MKN45 cells. A significant decrease (41%) in median expression levels of *EED* was observed in the gastric mucosa of *H. pylori*-infected (N=21) versus uninfected (N=9) patients ($P=0.03$). *EZH2* and *EED* expression was significantly reduced in *H. pylori*-infected THP-1 macrophages. *KDM6B* was significantly increased in THP-1 cells infected with live and heat inactivated *H. pylori*. Decreased expression of PRC2 components was associated with decreased accumulation of H3K27me3 and increased PolII at the transcriptional start site of *Interleukin-8* gene.

Conclusions

H. pylori alters expression of histone modification complex components and reduces levels of the repressive histone mark H3K27me3 at the *Interleukin-8* gene. Further studies will identify additional genes that are impacted by changes in H3K27 methylation during *H. pylori* pathogenesis.

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