

Joint neuro-gastroenterology/motility and young persons section symposium "The trials and tribulations of FGD in young adults"

OC-070 DIETARY SUPPLEMENTATION WITH FODMAPS INCREASES FASTING COLONIC VOLUME AND BREATH HYDROGEN IN HEALTHY VOLUNTEERS: A MECHANISTIC STUDY USING MRI

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Introduction Indigestible fermentable carbohydrates, grouped as FODMAPs, have been proposed to induce gastrointestinal symptoms. Some, such as oligofructose (OF), are prebiotics and modify the microbiota. The metabolic activity of the microbiota affected transit time in a mouse model.¹ This study hypothesised that dietary supplementation with OF would shorten whole gut transit time (WGTT) and improve the capacity of the microbiota to metabolise a FODMAP challenge.

Methods The study was an open-label case series. 16 healthy volunteers underwent fasting MRI to assess colonic volume [2] and the position of 5 transit markers ingested 24 h earlier from which WGTT could be calculated.³ Breath hydrogen (H₂) and methane (CH₄) were also measured. Subjects then consumed an inulin challenge drink (ICD): 500 ml water containing 40 g inulin. Inulin is fermented in the colon and known to increase H₂ and colonic volume.⁴ After ICD subjects could sip water and were given a low FODMAP lunch but no other food was allowed. 8 h post-ICD MRI was repeated. Breath measurements were repeated 4 and 8 h post-ICD. Subjects then supplemented their usual diet with OF (gift from BENEIO, Germany), 5 g twice daily, for a week. Fasting and post-ICD measurements were then repeated. Dietary questionnaires were completed for the weeks preceding MRIs to assess dietary fructan intake.

Results Median [IQR] given unless stated as mean [95% CI]. Fasting colonic volumes (510 ml [400–710]) increased by mean 94 ml [12 – 177, $p = 0.03$] after OF. Fasting H₂ (33 ppm [9–87]) increased by mean 39 ppm [6 – 71, $p = 0.02$]. WGTT (34 h [10 – 45]) increased by 19 h [–9 – 42] but this increase did

not reach significance ($p = 0.09$, Wilcoxon). Colonic volumes post-ICD were similar across weeks (mean 726 ml [667–785]). The change from baseline was significant in week 1 but not week 2 due to the difference in fasting volumes. There was no difference between weeks 1 and 2 in H₂ at 4 or 8 h after ICD. CH₄ did not change. Dietary fructan intake was similar in both weeks (mean < 8 g/day).

Conclusion OF increased fasting colonic volumes by 18%. H₂ also rose. This may reflect increased bacterial mass with increased capacity for fermentation. The suggestion that OF slows WGTT is surprising and warrants further investigation. MRI can complement research on the microbiota to describe its impact on gut physiology.

REFERENCES

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Disclosure of Interest None Declared.

Pathology section symposium

OC-071 SCREENING FOR ANAL PRE-CANCER IN HIV POSITIVE AND NEGATIVE MEN WHO HAVE SEX WITH MEN (MSM) AND RENAL TRANSPLANT RECIPIENTS: EARLY EXPERIENCE FROM A MANCHESTER BASED PROSPECTIVE STUDY

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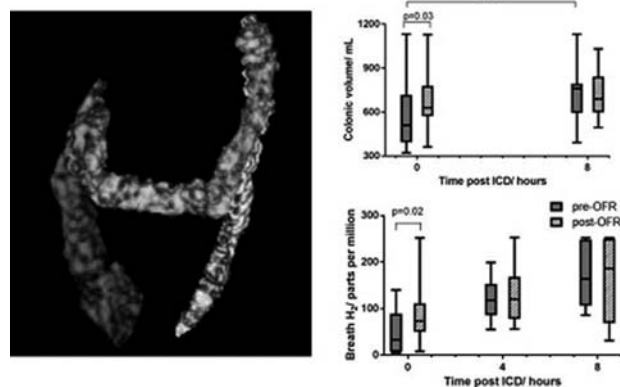
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Introduction The UK National Screening Committee has suggested that screening for anal intraepithelial neoplasia (AIN) in populations at high-risk of anal squamous cell carcinoma may be of benefit, but that further information is needed. In these groups the risk of developing anal cancer is increased up-to 100-fold.

Methods ANALOGY is an ongoing prospective cohort study addressing the feasibility and acceptability of anal screening in high-risk groups, based on liquid based cytology (LBC), HPV testing and high-resolution anoscopy (HRA). High-risk patients aged over 25 with no previous history of anal pre-cancer or cancer who are HIV+ men who have sex with men (MSM), HIV-MSM, HIV+ women with a gynaecological neoplasia history or transplant recipients who are 2-years post-procedure were all recruited. All participants had baseline LBC, HPV typing and HRA at recruitment and at 6-months, with a diagnostic biopsy being taken for participants with an abnormal HRA, referral for colorectal opinion was sought in high-grade AIN (HGAIN 3) on biopsy or HSIL on LBC. Data are presented for participants recruited from March 2013.

Results To date, 173 participants have baseline data; 78 HIV+ and 25 HIV- MSM, 4 HIV+ women, 42 male and 24 female transplant recipients. Overall 65.8% (114/173) were HPV positive of whom 34.2% (39/114) were HPV 16 positive (30 HIV+

Changes in physiological parameters pre- and post-oligofructose supplementation



Abstract OC-070 Figure 1

MSM, 7 HIV- MSM, 1 male and 1 female transplant recipients). Abnormal cytology was found in 28.3% (49/173). Abnormal HRA requiring a biopsy was found in 43.3% (75/173) of patients, in HIV+ MSM this proportion was 61.5% (48/78), including 20 high-grade AIN (HGAIN 2 or 3) and one invasive cancer. This constitutes a prevalence of high-grade disease of 26.9% (21/78), 4% (1/25) and 12.5% (3/24) for HIV+, HIV- MSM and renal transplant women respectively. Colorectal referral for HGAIN diagnosed at first visit was required in 7.5% (13/173) of patients, 69.2% (9/13) were HIV+ MSM, 23.1% (3/13) and 7.7% (1/13) were HIV- MSM and a renal transplant woman respectively.

Conclusion Early experience of anal screening in high-risk groups suggests that it is both acceptable and feasible. Colorectal referral for assessment of HGAIN was more frequent in HIV+ MSM than other high-risk groups. These prevalence data are similar to a recently published meta-analysis.

Disclosure of Interest None Declared.

Pancreatic and neuroendocrine free papers

OC-072 USE OF A NOVEL SELF-EXPANDING METAL STENT TO ALLOW FOR ENDOSCOPIC DRAINAGE AND NECROSECTOMY OF PANCREATIC FLUID COLLECTIONS

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Introduction Post-inflammatory peri-pancreatic fluid collections are frequent sequelae of severe acute pancreatitis. Collections are at risk of suppurative infection complicated by pancreatic necrosis. Over the last decade there has been an increasing emphasis on minimally invasive drainage procedures, including EUS-guided cyst-gastrostomy, and these approaches seem to be associated with lower morbidity and mortality. Access to the necrosis cavity has however been severely limited by having to maintain the tract with small diameter plastic stents. Recently, a novel flanged fully covered self-expanding metal stent (FCSEMS; NAGI stent, Taewoong Medical, Korea) has been developed to allow for better drainage of infected necrosis and easier endoscopic access into the cavity.

Setting A non-randomised prospective multicentre phase II study to determine the safety and efficacy of FCSEMS endoscopic cyst-gastrostomy in the management of complex/infected pancreatic fluid collections.

Methods Patients were included if they had evidence of a pancreatic fluid collection which was deemed to be amenable for EUS-guided drainage after discussion at a HPB multidisciplinary meeting. Patients selected for EUS-guided drainage had cross sectional imaging (MR or CT) performed within 2 weeks of the procedure and then an EUS assessment was made of the necrotic component. The collection was punctured using a cystotome and the FCSEMS inserted over a guidewire with fluoroscopic control. Repeat procedures were performed as necessary.

Results A total of 11 patients (8 male, 3 female) were included in the study. Median age was 57.3 years. The aetiology of the collection was gallstones in 6 patients, idiopathic in 3, ischaemic in 1 and drug-induced in 1. Ten patients had evidence of at least 30% necrosis within the collection. Mean diameter of the collection was 15 cm and EUS-guided puncture was initially performed in all

patients. The tract was dilated with a balloon in 6 patients. Stent insertion was either with a 20 mm (7 patients) or 30 mm (4 patients) length FCSEMS. Ten patients underwent endoscopic necrosectomy, with a median of 3 procedures (range 1–10). Significant reduction in the size of collection was achieved in all patients. Adverse events included stent migration in 3 (2 spontaneously and 1 during necrosectomy). Two patients died of complications of severe acute pancreatitis.

Conclusion FCSEMS insertion is feasible and safe for drainage of pancreatic fluid collections. It allows repeated through the stent necrosectomy procedures and appears to be a major advance in the management of infected pancreatic necrosis.

Disclosure of Interest None Declared.

OC-073 USE OF BOTULINUM TOXIN TO PREDICT MANOMETRY RESULTS IN TYPE III SPHINCTER OF ODDI DYSFUNCTION; A RETROSPECTIVE SINGLE CENTRE REVIEW

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Introduction Management of type III sphincter of Oddi dysfunction (SOD) remains controversial. A recent large multi centre study of manometry and sphincterotomy in type III SOD (EPI-SOD)¹ found that sphincterotomy was no more effective than sham treatment. Botulinum toxin (botox) injection to the papilla has been shown to be safe and lead to improvement in symptoms, it may also predict response to sphincterotomy²

This study reviewed use of botox in patients with type III within a single tertiary centre to guide decision making.

Methods The endoscopy unit database was searched for cases between January 2008 to August 2013 who received botox for SOD. Records were reviewed to identify those who had type 3 SOD as per Rome 3 criteria. Response to botox was graded as no response, partial (reduction but not resolution of pain) or complete response. Complications, manometry and sphincterotomy results were recorded.

Results 63 patients had botox injection for SOD 46 were classified as type III and formed the study group. All received 100IU of botox. Following the procedure 3 of 46 patients required overnight observation for abdominal pain, there were no cases of pancreatitis. 14 patients had no response to botox, 7 partial response, 24 a complete response, 1 did not attend follow up.

Of those that had a complete response 14 patients proceeded to manometry; reasons not to proceed included failure to attend follow up (2) patient declined treatment (1) other co-morbidities (1). One underwent a second botox procedure with no relief in symptoms and was not offered further treatment, 5 patients (21%) were not offered manometry. Of those that proceeded to manometry, 10 (71%) had elevated pressures 8 biliary, 2 pancreatic. All proceeded to sphincterotomy with good response in 9 (64% of Botox responders). 3 of the 7 patients who partially responded proceeded to manometry; 1 of these had increased biliary pressures. 3 patients (18%) had an episode of pancreatitis following manometry.

Conclusion Response to botox appears to show moderate correlation with abnormal manometry findings and response to sphincterotomy. ERCP and manometry was associated with a significant risk of pancreatitis. Randomised sham controlled studies are required to ascertain whether a response to botox can accurately select patients who benefit from a sustained response to sphincterotomy.