REFERENCE

1. Miller, A.S., Boyce, K., Box, B., Clarke, M.D., Duff, S.E., Foley, N.M., Guy, R.J., Massey, L.H., Ramsay, G., Slade, D.A.J., Stephenson, J.A., Tozer, P.J. and Wright, D. (2021), The Association of Coloproctology of Great Britain and Ireland consensus guidelines in emergency colorectal surgery. *Colorectal Dis*, **23**: 476-547.

Neurogastroenterology

PWE-53 THE RELATIONSHIP BETWEEN HOSPITAL ADMISSIONS FOR CONSTIPATION AND OPIOID PRESCRIBING: A 20 YEAR CORRELATION STUDY

¹Shivam Chauhan*, ^{1,2}Maura Corsetti, ^{1,2}Timothy Card. ¹University Of Nottingham, Nottingham, UK; ²NIHR Nottingham Biomedical Research Centre at the Nottingham University Hospitals NHS Trust and the University of Nottingham, Nottingham, UK

10.1136/gutjnl-2021-BSG.316

Background Constipation is a common problem with numerous causes, including several drugs among which opiates are prominent. Considering the reported increase in opioid prescriptions worldwide, we hypothesised that if this is mirrored in England then hospital admissions for constipation would rise in proportion to the rise in opiate prescriptions.

Methods Publicly available data on admissions was obtained using NHS Hospital Admissions Statistics and data on opioid prescribing using NHS Prescription Cost Analysis. Admissions and opioid prescriptions were summarised annually, and the changing age structure of the population measured as the proportion over 75 between 1998 and 2020. Annual opioid prescriptions were plotted against annual admissions for constipation and the data modelled using Poisson regression to correct for the effect of changing population structure.

Results Between 1998 and 2018, opioid prescribing increased by a factor of 5 and constipation admissions have increased across age groups except (0-14). Patients are spending less days in hospital (declining from a mean of 5 to 3 days) per admission with the overall number of bed days remaining relatively consistent over the past 20 years. The English population has become more elderly with the proportion over 75 years of age increasing. A plot of opioid prescriptions against admissions for constipation confirms that they rise together (Figure 1). Poisson regression shows that admissions rise with an incidence rate ratio of 1.025 (95% CI 1.024-1.026) for

Abstract PWE-53 Figure 1 Plot of constipation admissions against opioid prescriptions between the years 1998-1999 (referred to as above as 1999) and 2017-2018 (2018)

every million extra prescriptions after correcting for the aging population.

Discussion The findings demonstrate a clear association between opioid prescribing and constipation in England over the last 2 decades. We are unable to correct for the effect of most potential confounders, although we have attempted to address the possible effect of an aging population. The ecological nature of the study in addition precludes us attributing causality to the association. However, the strength of the relationship, the biological plausibility of the mechanism and the importance of the problem, mean this needs to be investigated further.

PWE-54 TRANSDUODENAL SPHINCTEROPLASTY IN THE MANAGEMENT OF REFRACTORY PAIN IN TYPE II SPHINCTER OF ODDI DYSFUNCTION

^{1,2}Shyam Menon*, ²Ravi Marudanayagam. ¹The Royal Wolverhampton Nhs Trust, Wolverhampton, UK; ²University Hospitals Birmingham NHS Foundation Trust, Birmingham, UK

10.1136/gutjnl-2021-BSG.317

Introduction The management of Type II sphincter of Oddi dysfunction (SOD) or functional biliary sphincter disorder (FBSD) is complex. Endoscopic biliary sphincterotomy is ineffective in a proportion of patients and many patients continue to experience debilitating attacks pancreaticobiliary pain necessitating multiple hospital admissions. Intermittent intra-sphincteric Botulinum toxin (Botox) injection, in conjunction with neuromodulatory therapy is useful in alleviating pain in many patients with ongoing functional biliary pain¹, but some patients develop pain refractory to Botox therapy. Surgical biliary sphincteroplasty has been previously demonstrated to be effective in the management of SOD.² We present our experience in managing refractory pancreaticobiliary pain in FBSD by surgical sphincteroplasty.

Methods A retrospective review of case notes over a 7-year period (2013-2020) was performed. The diagnosis of Type II SOD or FBSD was made in post cholecystectomy patients with abdominal pain identical to their pre-cholecystectomy pain. All patients underwent extensive investigations including blood tests, gastroscopy, trans-abdominal ultrasonography, cross-sectional imaging with MRCP or CT and endoscopic ultrasound and Morphine TBIDA scans. Patients with typical pre-cholecystectomy pain and either a dilated bile or abnormal liver function tests (ALT or ALP x 1.5 times upper limit of normal) in line with the modified Milwaukee criteria and/or a positive Morphine TBIDA scan were identified as Type II SOD or FBSD. All patients underwent endoscopic biliary sphincterotomy and due to ongoing pancreaticobiliary pain, underwent intermittent Botox injections, under deep sedation or anaesthesia, in a quadrant fashion around the sphincterotomised ampullary area. Transduodenal surgical sphincteroplasty was performed in these patients once their pain became refractory to further Botox therapy. The efficacy of surgical sphincteroplasty was recorded at post-procedure outpatient review using a nominal pain scale. The need for opioid analgesia and adjustments to neuromodulatory medication were recorded on follow up.

Results 11 women with FBSD (mean age 37 (31-47 years) underwent biliary sphincterotomy and intermittent Botox injections prospectively over a period of (27 (6-56) months), with a mean of 6 (2-11) Botox injections per patient, delivered at a mean of every 5 (2-11) months. A median Botox dose of 400 (100-600) units was used. Once symptoms became refractory to Botox injections, all patients underwent uncomplicated trans-duodenal surgical sphincteroplasty. On outpatient review over 12 months, 8 patients (73%) reported complete relief of pain and were able to stop regular opioid analgesia and did not experience any further episodes of pain or hospital admissions. 3 patients reported partial relief of pain and needed to continue opioids. There were no further hospital admissions in this cohort either.

Conclusions Surgical sphincteroplasty is useful in managing refractory pancreaticobiliary pain in sphincterotomised patients with FBSD.

PWE-56 EFFECT OF CHANGES IN GUT TRANSIT ON GI SYMPTOMS

¹Haider Khan*, ²Imad Wazir, ³Malik Aamaz Khan, ¹Stephen Lewis. ¹Derriford Hospital Plymouth, Plymouth, UK; ²Royal Derby Hospital, Nottingham, UK; ³Princess Alexandra Hospital, Harlow, UK

10.1136/gutjnl-2021-BSG.318

Introduction To evaluate the effect of induced changes in WGTT on symptoms.

Background Whole-gut transit-time (WGTT) has been shown to be faster in patients with anxiety and slower in those with depression. Abdominal symptoms are more common in patients reporting constipation and volunteers with induced constipation.

Methodology Healthy volunteers were randomly allocated to a baseline assessment period followed by another assessment period whilst taking either senna or loperamide. After a 2-week washout volunteers were crossed over to receive the other intervention after a baseline assessment. Patients had their WGTT measured and were evaluated with symptoms Likart scales (range 0-100%) for anxiety, bloating, hunger, quality of sleep, abdominal cramp and energy levels. Results were analysed parametrically with paired t-tests and Pearson's correlations.

Results Of the 18 healthy volunteers 12 were male. The mean age and BMI were 40 years and 25.6 kg/m² respectively. Mean baseline WGTT was 46h SD±16h. Loperamide increased mean WGTT by 22h SD±14h, p<0.001 (95% CI: 4-30), Senna reduced by -14h SD± 13h p=0.002 (95% CI: 6-22). Both loperamide (26% (95% CI 15-36) p<0.001) and senna (12% (95%CI 0-24) p=0.05) increased bloating. Loperamide increased abdominal cramps by 23% (95% CI 11-35) p=0.001. No changes in the scores for the other parameters were noted. WGTT did not correlate with any symptom. Bloating correlated with cramps (r=0.85, p<0.001), anxiety (r=0.42, p=0.006), energy levels (r=0.69, p<0.001) and quality of sleep (r=-0.55, p<0.001).

Conclusions Increasing and decreasing WGTT resulted in bloating, though this did not directly correlate with WGTT. This suggests that it is the change in bowel habit that causes

distress, not the direction of change. The presence of bloating correlated with increased anxiety, cramps, energy levels and poor sleep perhaps suggesting an interrelationship between these symptoms unrelated to WGTT.

PWE-57 IS GUT-FOCUSED HYPNOTHERAPY AN EFFECTIVE TREATMENT OPTION FOR BRITISH SOUTH ASIANS WITH SEVERE REFRACTORY IBS?

Syed S Hasan*, Peter J Whorwell, Dipesh Vasant. Manchester University NHS Foundation Trust, Manchester, UK

10.1136/gutjnl-2021-BSG.319

Introduction Recent studies have confirmed a high worldwide prevalence of Irritable Bowel Syndrome (IBS) and suggest that cultural factors including; social taboos, stigmatisation, dietary factors, healthcare beliefs and communication gaps may contribute to disparities in the management of IBS between ethnic groups. It is unknown whether these factors contribute to outcomes of IBS treatments in different ethnic groups. In this context, we evaluated outcomes of gut-focused hypnotherapy in a South Asian population for the first time.

Methods Consecutive South Asian patients with refractory IBS that received 12 weekly sessions of gut-focused hypnotherapy (GFH) using the Manchester protocol were included. Patients were treated by a team including a therapist able to speak several South Asian languages. All patients prospectively completed the following questionnaires before and after GFH; IBS symptom severity score (IBS-SSS), Hospital Anxiety and Depression scale (HAD), Non-Colonic Symptom score and quality-of-life (QoL) score. The primary outcome measure was response to GFH defined by ≥50-point reduction in IBS-SSS. Data, expressed as mean ± standard error, were compared statistically before and after treatment using paired t-tests and non-parametric tests where applicable.

Results 44 South Asian patients with IBS (age 49 ± 1.9 years; 29 (66%) female; 22/44 IBS-D, 16/44 IBS-C and 7/44 IBS-M; 15/44 Indian origin, 25/44 Pakistani origin, 4/44 other Asian countries; baseline IBS-SSS 332.8 ± 14.3) completed GFH. 40/44 (91%) received GFH in English. Overall, 37/44 (84%) achieved a ≥50-point reduction in IBS-SSS and 25/44 (57%) achieved ≥30% reduction in abdominal pain scores. Following 12-sessions of GFH, there were significant mean improvements in IBS-SSS (-132.1, P<0.0001), non-colonic symptom score (P<0.0001), QoL score (P<0.0001), HAD-anxiety (P<0.0001) and HAD-depression (P<0.0001), compared to baseline. Response rates were similar in patients of Indian 12/15 (80%) and Pakistani 23/25 (92%) origin, P=0.32. Although not statistically significant, there was a trend towards a higher response rate in patients treated by a South Asian therapist, compared to those treated by a non-Asian therapist (response rates: 21/23 (91%) vs. 16/21 (76%), P=0.21).

Conclusion These data suggest that GFH is highly-effective in this population and support its development for IBS in South Asian countries. Regardless of the ethnicity of the therapist, response rates were similar to published GFH outcomes in other IBS populations. However, knowledge of the patients cultural beliefs and language may help customise the treatment, enhance the patient experience, and further optimise outcomes.