hemostasis. The following parameters were measured in 3 female pigs: histological assessment and pre-coagulation endoscopic performance. All animals were recovered for 2, 5 and 7days.

Results In animal one, microwave bursts of 5 , 10 and 15 sec were applied to the revealed submucosa compared to standard monopolar bursts of a 1 sec. Histology showed that 5 and 10 sec of microwave has equivalent histological appearance with standard monolopar preserving the serosal integrity with mild muscle alteration. In animal 2 and 3, microwave was applied for 9 sec in 6 lesions, standard monopolar was applied for 1–2 sec in 6 lesions and standard bipolar was applied for 3–4 sec in 6 more lesions. Histology showed viable serosa with no muscle alterations in microwave group, viable serosa with mild muscle alterations in standard bipolar and viable serosa with mild/moderate muscle alterations in standard monopolar group. In all cases muscle layer cells were contiguous. During the pre-coagulations endoscopic assessment, all modalities were applied to coagulate vessels with median calibre of 2 mm before and after dissection. Effective pre-coagulation was achieved in 3 out of the 6 visible vessels (microwave group) and in 2 out of the 6 visible vessels (standard monopolar and bipolar groups). Effective coagulation (defined when blood flow stopped) was achieved after the dissection, in all three groups.

Conclusion Compared to Coagrasper (monopolar) and Gold Probe (bipolar), the microwave modality of Speedboat RS2 appears to be equivalent during the pre-coagulation phase. The safety profile of coagulation phase resembles the profile of the other two modalities but with less muscle alterations in the histological specimens.

Disclosure of Interest Z. Tsiamoulos Consultant for: Creo Medical Ltd, C. Hancock Shareholder of: Creo Medical Ltd, P. Sibbons Paid instructor for: Creo Medical Ltd, B. Saunders Consultant for: Creo Medical Ltd, Paid instructor for: Olympus KeyMed.

Inflammatory bowel disease II

PWE-070 PERSPECTIVES AND ATTITUDES TO COLONOSCOPY IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE

C Alexakis*, L Medcalf, V Chhaya, J-Y Kang, P Neild, A Poullis, R Pollok. *Department of Gastroenterology, St George's Hospital, London, UK*

10.1136/gutjnl-2014-307263.330

Introduction Visualisation of mucosa at ileocolonoscopy (IC) remains the gold standard in the assessment of mucosal healing (MH) in patients with inflammatory bowel disease (IBD). MH is evolving as a key endpoint in assessing response to therapy. This will invariably mean an increased endoscopic burden on these patients. We aimed to investigate IBD patients' perspectives on this, as well as their tolerance of IC.

Methods Consecutive patients attending IBD clinic between September and December 2013 were questioned on their experience of IC. Data on sex, age, disease type (Crohn's (CD) or ulcerative colitis (UC)), duration of illness, and no. of IC was obtained. They were asked to grade various components of the IC experience (concerns about complications, bowel preparation, disruption to life, procedure discomfort, travel to hospital) on a standardised tolerance scale from 1–5. They were also asked to qualitatively rate their overall experience of IC (not unpleasant/neither unpleasant nor pleasant/bearable/unpleasant/very unpleasant). Finally, they were asked how often they would be prepared to undertake IC in the future.

Results 98 patients responded (46% male). Mean age was 43.2 years. 33 had UC, 50 had CD, and 11 were unsure of diagnosis. Mean no. IC was 3.7. 62% had a disease duration >5 years, with only 4% diagnosed in the previous year. Mean tolerance scores for the group were: concerns about complications 2.6, bowel preparation 3.0, disruption to life 2.4, discomfort during procedure 3.0, travel to/from hospital 1.7. Comparisons between patient subgroups CD versus UC, age ≥55 years versus age <55 years, ≥4 IC versus <4 IC, and diagnosis ≥5 years versus diagnosis <5 years, revealed no significant differences in scores. However, comparison between sexes showed females were more worried about the procedure than males (3.0 vs. 2.1, $p = 0.02$), were less tolerant of bowel preparation (3.5 vs. 2.3, $p < 0.001$), experienced more disruption to their lives (2.9 vs. 1.9, $p < 0.001$) and were more troubled by travel concerns (2.0 vs. 1.4, $p = 0.02$). The majority of the patients felt IC was bearable (53%) with only 13% describing it as very unpleasant. 55% would have the procedure as frequently as required if their physician felt it appropriate. 7% would only have IC every 5 years.

Conclusion Bowel preparation and procedural discomfort are the most bothersome aspects of IC amongst IBD patients. There are clear differences in tolerance between female and male patients, and these results should prompt endoscopy units to find ways of improving patient acceptability. This could be provided in the form of a pre-test telephone consultation. A minority of patients were reluctant to increase their frequency of IC, which may be relevant in the monitoring of MH in their future management.

Disclosure of Interest None Declared.

PWE-071 EFFICACY OF INFLIXIMAB AS SECOND-LINE BIOLOGIC IN CROHN'S DISEASE

[1]E Russo*, [2]R Hackett, [3]S Campbell, [4]JO Lindsay, [5]PM Irving, [6]TR Orchard. *[1]Medicine, Imperial College London, UK; [2]Barts and the London School of Medicine and Dentistry, London, UK; [3]Gastroenterology, MAnchester Royal Infirmary, Manchester, UK; [4]Gastroenterology, Barts and the London NHS Trust, London, UK; [5]Gastroenterology, Guy's and St Thomas' Hospitals, London, UK; [6]Gastroenterology, St Mary's Hospital, London, UK*

10.1136/gutjnl-2014-307263.331

Introduction A common therapeutic strategy in events of failure of the first-line anti-TNFα biologic in Crohn's Disease (CD) is to switch to another biologic agent from the same class. There is a significant body of evidence to support using adalimumab (ADA) as second-line therapy following infliximab (IFX) intolerance or loss of response. The aim of this study is to provide evidence around the use of IFX as second-line therapy in CD, an empirical strategy gaining popularity since both agents have recently been licensed as first line agents for moderate-to-severe CD.

Methods Inflammatory Bowel Disease (IBD) specialists from 5 hospitals were invited to contribute all suitable cases through a secure online questionnaire. Data was gathered on patient demographics, disease extent and behaviour, prior or concurrent therapies, duration and outcome of ADA and IFX therapy and reason for switching. Response to the biologic was determined using Physician's Global Assessment (PGA) by each IBD specialist.

Results Data on 28 patients (10 male) were gathered. Median duration of disease before starting biologics was 4.5years.

Of the 19 patients on ongoing IFX, 5/19 (26%) are on monotherapy 11/19 (58%) are on concurrent immunomodulator 2/19

Abstract PWE-071 Table 1 demonstrates the aetiology and outcome of Anti-TNF switching.

Reason for stopping ADA	N	Effect of swapping	N on ongoing IFX therapy	Responders' median (range) t on IFX (months)
Primary failure	9	6/9 (66%) Achieved response 3/9 (33%) No response	5/9	8 (3–55)
Secondary loss of response	14	12/14 (86%) Re-captured response 2/14 (14%) Not recaptured response	11/14	24 (4–39)
Intolerance	3	2/3 (66%) Maintained response 1/3 (33%) Lost response	2/3	6 (2–9)
Other	2	2/2 (100%) Maintained response	1 /2	13
Total	**28**	**22/28 (79%) Positive outcome**	**19/28 (68%)**	13 (2–55)

(11%)on concurrent mesalasine and 1/19(5%) are on concurrent steroids.

3 people discontinued IFX following an initial response due to hypersensitivity reaction (2/3) and due to conversion back to ADA due to patient preference (1/3).

Conclusion Using ADA as first-line and IFX second-line for ADA failures is a successful and safe strategy in patients with moderate-to-severe CD.

REFERENCE

Sandborn WJ. *Ann Intern Med*. Jun 19;2007;146(12):829–38

Disclosure of Interest E. Russo Grant/research support from: GSK, R. Hackett: None Declared, S. Campbell Grant/research support from: MSD. Abbvie, J. Lindsay Grant/research support from: MSD, Abbvie, Consultant for: MSD, Abbvie, Tadeka, P. Irving Consultant for: Abbvie, MSD, T. Orchard Grant/research support from: Johnson and Johnson, Consultant for: Abbvie, Ferring, MSD, Takeda, Vifor, Warner Chilcott.

PWE-072 THE EFFECTS OF ANTI-TNF THERAPY ON GROWTH IN IBD IN SCOTTISH CHILDREN

[1]FL Cameron*, [2]M Al-Towati, [3]WM Bisset, [2]SF Ahmed, [1]DC Wilson, [4]RK Russell. *[1]Child Life and Health, University of Edinburgh, Edinburgh, UK; [2]Developmental Endocrinology Research Group, University of Glasgow, Glasgow, UK; [3]Paediatric Gastroenterology, Royal Aberdeen Children's Hospital, Aberdeen, UK; [4]Paediatric Gastroenterology, Royal Hospital for Sick Children, Glasgow, UK*

10.1136/gutjnl-2014-307263.332

Introduction Growth failure is well-recognised in paediatric IBD (PIBD; <18 years). Evidence (usually case series from single/multiple centres) shows anti-TNF therapies improve linear growth. We aimed to examine if anti-TNF therapy improves growth in a PIBD population-based cohort.

Methods Retrospective review of all children receiving anti-TNF (infliximab (IFX) and adalimumab (ADA)) from 2000–2012 in paediatric services in Scotland. Height (Ht), weight and Tanner stage were collected at 3 times: 12 months before anti-TNF (T-12), start of anti-TNF (T0) and 12 (T+12) months after anti-TNF. Ht and growth were converted into standard deviation scores (SDS) and height velocity (HV, cm/ year) were calculated.

Results 97/201 PIBD cases (3ADA, 94 IFX) had 12 month growth data, 58 (59%) males and 90 (93%) Crohn's disease (CD); 84 (87%) received immunomodulators and 47 (48%) corticosteroids at T0. Median age at diagnosis was 10.3 years. In IFX treated, mean Ht SDS T-12 was -0.67 +/-1.1; improvement was then seen from T0 -0.82 +/-1.1 to T+12 -0.74 +/-1.1 (p = 0.031). Mean ΔHtSDS improved from -0.16 +/-0.38 at T0 to 0.08 +/- 0.36 at T+12 (p < 0.001) with HV improving from 3.9 cm/yr +/-2.5 at T0 to 5.0 cm/yr +/-2.9 (p = 0.003). 56 (60%) entered remission, HtSDS improved from -0.77 +/- 1.1 at T0 to -0.56 (+/-1.1) at T+12 (p = 0.0004). ΔHtSDS improved from T0 -0.14 (+/-0.04) to 0.21 (+/-0.04) at T+12 (p < 0.001) and HV from 4.0 cm/yr (+/-2.3) at T0 to 5.6cm/yr (+/-2.9) at T12 (p = 0.003).

44/94 IFX (48%) were Tanner stage 1–3; 40 CD. Mean HtSDS decreased from -1.0 (+/- 1.1) at T-12 to -1.2 (+/-1.3) at T+12 but, HV 3.6 cm/yr (+/-2.1) at T0 improved to 5.5cm/yr (+/-2.7) at T12 (p < 0.001). In Tanner 4and5, no change in HtSDS or ΔHtSDS was seen.

61 (65%) had disease for ≥2 years at start of IFX, HtSDS improved from -0.77+/-1.2 at T0 to -0.65+/-1.2 at T+12 (p = 0.007) whilst disease <2 years (n = 33) had no change; HtSDS -0.93+/- 0.97 at T0 and -0.92+/-0.89 at T+12 (p = 0.89). Improvement was seen in height velocity in ≥ 2; years HV 4.1 +/-2.5 at T0 and 5.0+/-2.9 at T+12 (p = 0.039) compared to HV <2 years 3.6+/-2.3 at T0 and 4.8+/-3.0 at T+12 (p = 0.08). Greater improvement in ΔHtSDS in ≥2 yrs; ΔHtSDS at T0 -0.12+/-0.35 improved to 0.12+/-0.33 at T+12 (p < 0.001) vs. -0.22+/-0.43 at T0 to 0.16+/-0.4 (p = 0.018) for <2 yrs.

In UC (n = 7) no change was seen in ΔHtSDS or HV at T-12, T0 or T+12 (p 0 >0.05).

Conclusion Improvements in HtSDS and height velocity at 12 months were seen in the whole cohort. In Tanner 1–3 improvement was only seen in HV after 12 months with no improvement in Ht sSDS. No improvement in height noted in UC. Further follow up will determine if growth improvement is maintained or further improves.

Disclosure of Interest None Declared.

PWE-073 ARE WE USING ANTI-TNF EARLY ENOUGH IN CROHN'S DISEASE IN THE UK?

H Steed*, A Rowlinson, F Leslie. *Gastroenterology, University Hospital North Staffordshire, Stoke-on-Trent, UK*

10.1136/gutjnl-2014-307263.333

Introduction Anti-TNF (a-TNF) prescription is tightly controlled by NICE guidelines and reserved for severe or resistant Crohn's disease in the UK, with annual review of ongoing prescription required and discontinuation for patients in remission.

Methods Retrospective review of 135 patients with Crohn's disease who have received anti-TNF at UHNS.

Results 135 patients received a-TNF; 51 male, 84 female with a mean age of 29 at diagnosis. 28% of patients smoke. Table 1 shows most advanced stage of disease at diagnosis and when a-TNF started.