procedure to 95 minutes. A dedicated infusion unit for IBD patients can achieve high standards of care.

**P151**

**How variable is the Mayo score between observers and might this affect trial recruitment or outcome?**

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**Background:** The Mayo score for ulcerative colitis (UC) activity has 4 components: stool frequency (SF), rectal bleeding (RB), flexible sigmoidoscopy (FS) and physician’s global assessment (PGA). Each category scores 0–3. How interobserver variation (IOV) affects the Mayo score and its impact on criteria for inclusion or outcome of clinical trials are unknown.

**Methods:** 100 patients with UC were seen independently, each on the same day, in random order, by 4 gastroenterologists. Both patient and clinicians completed proformas. A separate clinician performed video-recorded FS on the same day. The video was scored by the 4 gastroenterologists, blinded to other results. Comparison was made with inclusion criteria for ACT 1&2 trials (Mayo 6–12, endoscopy subscore ≥2), remission outcome (Mayo ≤2, no subscore >1) and partial Mayo score (endoscopy excluded). For clinical relevance (CR), scores were categorised as remission (≤2), mild (3–5), moderate (6–8), or severe (9–12) and an experienced, blinded clinician independently assigned an appropriate clinical category (ACC) to each patient by assessing symptoms, examination, blood results, FS and histology. Quadratic weighted χ2 statistics assessed agreement within the Mayo score, where disagreements are weighted in relation to their magnitude.

**Results:** Of 100 patients, there was complete agreement between 4 clinicians in total Mayo score in 6/96 (4 had no FS), varying by ≤2 points in 84/96, which changed clinical category in 23/84. Agreement for CR and ACC were good (κ=0.88, κ=0.81). Between patients and clinicians there was 70% agreement for SF and RB, but patients disagreed with individual clinicians in 30% for SF and 17% for RB. Patients scored a higher category than clinician in 34% for SF and 60% for RB. Between clinicians there was complete agreement in 65% for SF, 74% for RB, but only 21% for FS and 45% for PGA. Most disagreement was by one category (median 81%, range 74–93%). For inclusion criteria, at least 1 clinician would have included 41/96, but all agreed in only 17/41 (41%). At least 1 clinicians would have included 22 and excluded 67, so there was at least 25% disagreement in 26/96 (27%) and 50% disagreement in 11/96 (11%). 11% had FS score ≥2 but total score <5; 9.1% had a total score ≥6 but a FS score <1. For remission, at least 1 clinician scored <2 in 43/96, but all agreed in only 20/43 (47%) and 1 agreed in 35/43 (81%). Agreement was not significantly improved by a total score ≤1.

**Conclusion:** There is high variability in Mayo scoring between observers, despite good agreement on clinical category. Complete agreement between observers for recruitment to clinical trials or outcome occurs in <50% and 1 agreement in about 80% patients. IOV should be considered when calculating the power of clinical trials.

**P152**

**Double balloon enteroscopy: advancing the management of Crohn’s disease small bowel strictures**


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**Introduction:** Despite the use of appropriate medical therapy, Crohn’s disease (CD) small bowel (SB) strictures remain a major cause of morbidity. CD SB strictures affect over a third of CD patients and often lead to the need for surgical management. Further to the intrinsic risks associated with surgery, affected patients also face the potential consequence of short bowel syndrome.

**Aims and Methods:** Since introduction of DBE to our unit in 2005, data on cases of DBE CD SB stricture dilatation were prospectively collected for outcome, need for repeat dilatation and surgery. The DBEs were performed using the EN-450TS scope (Fujinon, Saitama, Japan). Balloon dilatation was performed using controlled radial expansion (CRE) balloon dilators (Boston Scientific, Mass, USA). A standardised 10 cm visual analogue scale (VAS) characterised symptoms and dietary restriction before DBE stricture dilatation and at follow-up.

**Results:** A total of 13 DBEs were done in 11 consecutive cases (mean age 46.4±7.8 years). In all but 1 case, the strictures were characterised radiologically before DBE. Eighteen SB stricture dilatations were performed in 9 of 11 patients. In 1 case, a retained video capsule was retrieved after dilatation of the culprit strictures. Mean stricture dilatation diameter was 14.5 mm (range 12–20 mm). In the 2 cases where stricture dilatation was not performed, DBE hindrance by adhesions made reaching the strictures impossible. These two cases were consequently managed surgically. One case of complex CD stricture dilatation was complicated by a delayed perforation. This case required a temporary jejunostomy which has since been reversed. In the other 8 cases SB stricture dilatation by DBE was an uncomplicated success; the symptom and dietary restriction scores improved dramatically and to date (mean follow up 19.4; range 1–40 months) none of these cases has required surgery for SB strictures. During follow-up, 2 patients required a repeat straightforward DBE dilatation (at 6.5 and 13 months respectively) due to recurrence of some of their symptoms. Although the numbers in this series are small, the clinical improvements in pre and post DBE VAS scores were large enough (means of 9.2 vs 1.7 respectively; p<0.001).

**Conclusion:** This case series adds to the small but growing body of published evidence that in selected patients with CD SB strictures, DBE facilitated stricture dilatation can prove to be very effective. This novel approach deserves further assessment in larger studies with more prolonged follow-up as the impact of on patient quality of life, avoidance of surgery associated risks and small bowel saving potential could be considerable.

**P153**

**The treatment of patients with antibiotic resistant pouchitis using stool coliform sensitivity testing**


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**Background:** Empirical antibiotic therapy remains the mainstay of treatment for pouchitis. Combination regimes of ciprofloxacin (C) and metronidazole (M) can be effective for patients resistant to a single antibiotic agent but failure to enter remission and relapse on withdrawal or during maintenance treatment can occur. Faecal coliform antibiotic sensitivity testing was used to select optimal treatment for pouchitis resistant to standard therapy.

**Method:** Faecal samples from patients with active pouchitis (pouch disease activity index (PDAI) ≥7) who failed standard antibiotic treatment were inoculated onto Iso-sensitest agar (Oxoid) using a sterile swab and rotary spreader. Antibiotic discs containing ciprofloxacin, trimethoprim, cefalexin, co-amoxiclav, nitrofurantoin, cepodoxime, cefuroxime, and cefixime were added. The plates were incubated at 37°C for 18–24 hours and the sensitivity patterns recorded. Following 4 weeks treatment with an antibiotic selected on its sensitivity, the clinical component of the PDAI was remeasured.

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Results: 15 patients with endoscopic and histologically proven chronic pouchitis were studied. 13 had failed to enter remission with CM, two had relapsed on maintenance C. Antibiotic coliform sensitivity testing showed: C resistance in all samples; co-amoxiclav resistance in four samples; trimethoprim resistance in 11 samples, cefixime resistance in eight samples. Four samples contained extended spectrum beta lactamase (ESBL) producing organisms. All 15 patients were treated with an antibiotic to which their faecal coliforms were sensitive. Twelve (80%) entered clinical remission with a PDAl symptom score of 0.

Discussion: Targeted antibiotic therapy is effective in the majority of patients with antibiotic resistant pouchitis. Faecal coliform sensitivity testing and targeted antibiotic therapy should be used in all patients who fail to respond to empirical antibiotic treatment or relapse on long term antibiotic therapy.

P154
Azathioprine and 6-mercaptopurine for the prevention of postoperative recurrence in Crohn’s disease: a meta-analysis of controlled trials with individual patient data

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Background and Aims: We performed a meta-analysis of controlled trials to evaluate efficacy of purine analogs (azathioprine, 6-mercaptopurine) in prevention of postoperative recurrence in Crohn’s disease.

Methods: We searched MEDLINE, Cochrane Library and EMBASE. The primary endpoints were clinical and endoscopic recurrence at 1 and two years, and were analysed by the methods of Peto and Der Simonian and Laird.

Results: Four controlled trials enrolled 433 patients and compared azathioprine (n=3) or 6-mercaptopurine (n=1) versus control arms (placebo with or without antibiotic induction therapy, or mesalazine). At 1 year, in overall analysis, purine analogs were more effective than control arms to prevent severe (≥2) endoscopic relapse (mean difference, 95% CI: 15%, 1.8–29%, P = 0.026, NNT = 7), but were not effective for prevention of very severe (≥3) recurrence. Efficacy at 2 years was not evaluable. In overall analysis, purine analogs were more effective than control arms to prevent clinical relapse at 1 year (mean difference, 95% CI: 8%, 1–15%, P = 0.021, NNT = 13) and two years (mean difference, 95% CI: 13%, 2–24%, P = 0.018, NNT = 8). In sensitivity analyses, the efficacy of purine analogs was superior to placebo (with or without antibiotic induction therapy) for prevention of clinical and endoscopic recurrence at 1 year (mean differences, CIs 95%: 13%, 1.8–25%, P = 0.025, NNT = 7, and 23%, 9–37%, P = 0.0016, NNT = 4, respectively). There was no statistical heterogeneity among the trials.

Conclusions: Purine analogs may be more effective than placebo to prevent both clinical and endoscopic recurrence in Crohn’s disease. The target population and optimal dosing regimen still need to be identified.

P155
Efficacy of enemas containing combination of mesalazine and methyl-prednisolone in active distal refractory ulcerative colitis

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Introduction and Aims: Distal ulcerative colitis (UC) can be effectively treated with topical mesalazine, oral mesalazine or with combination of both. We evaluated the efficacy of mesalazine 100 ml 4 g enemas with the adjunct of methylprednisolone 40 mg in patients with mild to moderate active distal UC, refractory to combined oral and topical mesalazine.

Methods: A total of 120 consecutive episodes of mild to moderate active distal UC refractory to 6 weeks combined oral and enema treatment with mesalazine in 78 patients [42 male, 36 female, median age 34.5 yrs (range 20–67), 37 with left-sided colitis and 41 with proctosigmoiditis] were treated for 6 weeks with mesalazine 100 ml 4 g enemas with the adjunct of methylprednisolone 40 mg. Patients were evaluated at inclusion and after 6 weeks, using UCDAI score, which is based on clinical signs and endoscopic evaluation. UCDAI score had to be ≥3 and ≤8. Remission was defined as an UCDAI score of ≤2, improvement was defined as a decrease in the UCDAI score by ≥2 points from baseline.

Results: At week 6, the remission rate was of 71.7%. Improvement was obtained in 15%. No serious adverse events were registered during the study.

Conclusions: In patients with mild to moderate distal refractory colitis the combined treatment with mesalazine+methylprednisolone enemas is highly effective and safe.

P156
Emotional and behavioural problems and competence among adolescents with inflammatory bowel disease and their peers

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Aims: To evaluate psychiatric symptoms, and competence among adolescents with inflammatory bowel disease (IBD), and to compare their emotional, behavioural and social functioning to those of matched controls. This study addresses simultaneous reports from adolescents and their parents.

Subjects and Methods: A standardized Achenbach Youth Self-Report (YSR) questionnaire assessing emotional and behavioural symptoms and social functioning was sent to Finnish adolescents diagnosed with IBD during years 1994–2007 and population-based controls matched for age, gender and place of residence. Also, the parents were asked to complete a standardized Achenbach Child Behaviour Checklist (CBCL) questionnaire. The final sample included 160 adolescents with IBD and 159 of their parents; 236 controls and 232 of their parents.

Results: According to parents’ report, adolescents with IBD had significantly more emotional problems including affective symptoms (p < 0.001), anxiety (p < 0.001), and somatic complaints (p < 0.001) than the controls. Further, IBD parents reported significantly lower competence (p < 0.05), more social problems (p < 0.05) and problems related to thinking (p < 0.001) in their children than the parents of controls. Unexpectedly, in adolescents’ self-reports there was no difference in the frequency of self-reported behavioural, emotional and social problems, somatic symptoms and competence among those with IBD and their population-based controls. However, adolescents with severe IBD reported significantly more emotional problems (p < 0.001) than adolescents with mild IBD symptoms.