necrosis factor (TNF) therapy in patients with refractory CD, who have lost response to standard dose treatment.

Methods A retrospective interrogation of our local inflammatory bowel disease database at Queen Elizabeth Hospital, Woolwich was undertaken to identify all patients who had had either dose-doubling or decreased dosing intervals of their anti-TNF therapies. Clinic letters, hospital notes, biochemical, endoscopic and radiological data were recorded and disease severity scores calculated using the Harvey-Bradshaw Index. We present our data describing efficacy and safety of these biologic agents at higher dosage.

Results A total of sixteen patients were in our study, 9(56%) female and 7(44%) male and the mean age was 38 years (range 21–68 years). Median disease duration was 6 years (range 2–13 years). There were 12 patients who were initially started on Infliximab while 4 had Adalimumab as their initial biologic therapy. 11(69%) patients had dose-doubling and 5(31%) patients had decreased dosage intervals due to secondary loss of response to initial anti-TNF at standard dosage regimen. Early response to dose-escalation was experienced by 9/16 (56%) patients while 7/16(44%) patients failed to respond to alteration in anti-TNF therapy regimen. Of the nine patients who initially showed response to intensified regimens, sustained clinical remission was maintained in 5(31%) patients at 12 months and this cohort was successfully weaned of biologic therapy. There was secondary loss of response in 4(25%) patients after median of 7.5 months (range 6–10) at this intensified regimen. No adverse effects were noted in our cohort of patients at this intensified regimen.

Conclusion Our experience of managing CD patients who have failed on their initial standard dose biological therapies has showed that there is certainly value in trialling either increased dosage or decreased dosing intervals of anti-TNF agent. Five patients achieved sustained clinical response and 4 patients had a median further 7 months of disease control prior to relapse. Higher anti-TNF dosage appears to be well tolerated and safe in CD. Of the patients who did fall in the latter two groups, there was a tendency towards reducing the dosing intervals as the more successful strategy above dose-doubling; however this was not statistically significant.

Disclosure of Interest None Declared.

PTH-091 TO EVALUATE THE EFFICACY AND SAFETY OF 6-THIOGUANINE THERAPY IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE – A DGH EXPERIENCE

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Introduction Conventional thiopurines (Azathioprine/6-Mercaptopurine) are considered to be safe and effective in the treatment of inflammatory bowel disease (IBD). Unfortunately more than 50% of patients discontinue thiopurine therapy, mainly due to the development of adverse events or therapy resistance¹. In recent years, 6-thioguanine (TG) has been used as an alternative thiopurine in IBD patients failing to tolerate or to respond to conventional thiopurine therapy. The aim of this study was to evaluate the tolerability, safety and efficacy of 6-thioguanine in the treatment of IBD patients in a District General Hospital (DGH).

Methods A retrospective database analysis was performed on all IBD patients who had previously failed to respond or to tolerate conventional thiopurine therapy and were subsequently treated with TG at 20 mg once daily. Rates and reasons for treatment failure were assessed. Clinical features, laboratory values, abdominal imaging and endoscopic remission rates were evaluated.

Results Total of twelve patients received TG and median treatment duration was 8 months (range 1–12). There were 7(58%) female and 5(42%) male. Mean age was 37 years (range 19–62).

6/12(50%) patients had Ulcerative Colitis (UC) and 6/12(50%) had Crohn's Disease (CD). Indications for initiation of 6-thioguanine therapy were conventional thiopurine intolerance 10(83%) and non-response to treatment 2(17%).

Two patients stopped taking treatment within first month due to fear of side effects; one of them wanted to become pregnant. Of 10 patients two failed TG therapy: one due to adverse event (hair loss) and other due to therapy failure. 4/10(40%) patients had partial response, having occasional mild flare ups while further 6/10(60%) patients remained in sustained clinical remission at 6 months on treatment, although one of the patient did not turn up to follow up appointment following 6 months of therapy. Tolerability and efficacy rates were similar in both UC and CD. All patients were closely monitored and no abnormality in liver function tests detected.

Conclusion Our study showed that TG was well tolerated in this selected group of difficult to treat patients. In addition, the use of small dose 20mg daily of TG appears to be relatively safe in IBD patients who failed conventional thiopurine therapy. Well designed prospective trials are required to further evaluate the safety and efficacy of 6-thioguanine.

Disclosure of Interest None Declared.

REFERENCE

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PTH-092 INTERVAL SCANNING WITH MAGNETIC RESONANCE ENTEROGRAPHY DEMONSTRATES RESPONSE TO ANTI-TNF THERAPY AND HAS UTILITY IN REASSESSMENT OF CROHN'S DISEASE

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Introduction NICE guidelines mandate yearly reassessment of disease activity for those treated with anti-TNF therapy (ATT). Magnetic resonance enterography (MRE) is established in the assessment of small bowel Crohn's disease, however, there is little data to support its utility in disease monitoring. We examined MRE prior to treatment and after at least 6 months treatment with ATT, observing for radiological remission or change in disease burden.

Methods We identified 27 patients (infliximab n = 23 adalimumab n = 4) who underwent pre-treatment and reassessment MRE from a local database of patients treated with ATT. MRE scans were assessed by a consultant radiologist, measuring location of lesions, number of skip lesions, length of affected small bowel and skip lesion wall thickness.

Results Median time to MRE post initiation of ATT was 12 months (range 6–20). All patients were ATT naïve prior to treatment; all but 2 were treated with concomitant immunosuppression. In 63% (n = 17) of patients, there was small bowel disease noted in > 1 location; terminal ileum 74% (20), distal ileum 37% (10), mid ileum 22% (6), proximal ileum 18% (5), distal jejunum 15% (4), mid jejunum 4% (1) and duodenum 4% (1). In no instances had disease spread to a new location on interval scanning. Total length of involvement (cm) improved post-treatment from median 15cm (range 3–50) to 6.8cm (0–33) p = 0.012, as did length of the dominant lesion 6.5cm (2.5–30) vs 3cm (0–30) p = 0.001. Lesion bowel wall thickness also improved 7mm (4–12) vs 5mm (2–10) p = 0.0006. Disease burden, calculated by total stricture length x bowel wall thickness, also improved, 80 (12–400) vs 32 (0–264) p = 0.001. Improvement in number of skip lesions per-patient was not significant 2 (1–6) vs 1 (0–5) p = 0.2; in 2 cases the number of skip lesions increased. In no cases was the total length of involvement

greater; however in 27% (7) cases this was static, and in 11% (3) bowel wall thickness was greater. Total disease burden was greater in 2 patients. Complete radiological remission was demonstrated in only 2 patients.

Conclusion Response of Crohn's disease to ATT is well documented, and we are able to demonstrate quantifiable interval improvement using MRE. Recording the disease burden by way of stricture length and bowel wall thickness is a mode of measuring MRE response to treatment in Crohn's disease and may be used for disease reassessment as required by NICE.

Disclosure of Interest None Declared.

PTH-093 EFFICACY OF METHOTREXATE IN ULCERATIVE COLITIS: A DISTRICT GENERAL HOSPITAL EXPERIENCE

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Introduction Uncontrolled studies have reported methotrexate (MTX) to be efficacious in patients with Ulcerative Colitis (UC). British Society of Gastroenterology guidelines recommend MTX in patients who are unresponsive or intolerant of thiopurines. Biologics are not available for UC because of local funding restrictions. Our practise is to only consider MTX in UC patients who have failed thiopurine therapy despite dose optimisation, including allopurinol co-therapy, to achieve therapeutic 6-thioguanine (TGN) and normal methylmercaptopurine nucleotide (MMPN) levels. To the best of our knowledge this is the first study to assess the clinical outcome of UC patients treated with MTX following thiopurine dose optimisation.

Methods Patients with UC treated with MTX were identified from a prospective IBD database. Outcomes following treatment with thiopurines were identified. All patients received MTX with folic acid supplementation. Patients were loaded with intramuscular 25mg MTX for 16 weeks followed by weekly maintenance MTX of 15mg. Clinical response at 16 weeks and 12 months was used to assess the efficacy of MTX.

Results 9 patients (male = 8) with UC treated with MTX were identified. Median age was 47.3 years (range; 24.8–77.8). Median time since diagnosis was 4.5 years (range; 1–25.5). Disease extent was extensive (n = 5), left sided (n = 1) and rectosigmoiditis (n = 3). Thiopurines had previously been discontinued in 9 patients because they were intolerant (n = 5) or unresponsive (n = 4) despite therapeutic TGN and normal MMPN levels.

2 patients (22%) entered a steroid-free clinical remission with MTX at 16 weeks, which was sustained at 12 months. Both were intolerant of thiopurines because of severe nausea and dyspepsia. 7 patients (78%) discontinued MTX at 16 weeks because of a lack of response (n = 6) or side effects (n = 1, pneumonitis). Clinical outcomes at 12 months for patients who failed MXT were colectomy (n = 4), arsenic suppositories (n = 2), and diagnostic reclassification (n = 1) to Crohn's disease with CMV colitis treated with ganciclovir and infliximab.

Conclusion The efficacy of MTX in UC patients in this study was poor with a low clinical response rate (22%) and high colectomy rate (44%). Previous retrospective studies have reported MTX to be efficacious in patients failing thiopurines without reporting on the use of thiopurine optimisation. This study suggests that MTX has limited use in UC patients who are unresponsive to thiopurines despite dose optimisation.

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Falk, Abbott, MSD & Ferring to attend meetings, S. McLaughlin Conflict with: Sponsorship from Falk to attend meetings

PTH-094 FAECAL CALPROTECTIN TESTING IN PRIMARY AND SECONDARY CARE – ARE THE CURRENT MANUFACTURER'S CUT-OFF LEVELS CLINICALLY USEFUL?

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Introduction Faecal Calprotectin (FC) is a protein complex found in high concentrations in neutrophils and is released within the bowel when inflammation occurs. It can be measured quantitatively using ELISA and is very sensitive and specific in discriminating inflammatory from non-inflammatory pathologies causing diarrhoea. The manufacturer recommends a positive stool FC test (> 60µg/g) to be indicative of inflammation and further investigations (e.g. endoscopy, histology and imaging) and referral to a Gastroenterology clinic is advised.

Methods Aims: To determine whether the manufacturer's cut-off levels for referral (> 60µg/g) are clinically useful in making a positive diagnosis in patients presenting with chronic diarrhoea. **Methods:** We analysed the outcome of 122 FC test results done in primary and secondary care during a 3 month period from October to December 2011 performed on patients who presented with chronic diarrhoea without a pre-existing diagnosis of Inflammatory Bowel Disease (IBD). According to manufacturer's guidance, a FC result of > 60µg/g was considered positive and ≤60µg/g negative. Positive FC patients were seen in a Gastroenterology Clinic and investigated appropriately. The primary outcome of this study was to record the final diagnosis arising out of FC testing and investigations thereof. Secondary outcomes were to correlate FC levels to the final diagnosis.

Results Of 122 FC tests, 41% (n = 51) were read as positive vs. 58% (n = 71) negative. 19/51 (37%) FC positive patients had a positive organic diagnosis (IBD = 9, Diverticulosis = 5, Colonic Polyps = 3, Infective colitis = 1 and Chronic Pancreatitis = 1) while the remaining 32 pts (63%) were given a diagnosis of functional bowel disorder after investigations. Of 71 patients testing negative on FC, 94% (n = 67) had functional bowel disorder; only 6% (n = 4) were found to have an organic condition, none of them IBD. This correlates with a positive predictive value of 37% and a negative predictive value of 94% for organic disease. The FC levels of those tested positive with a diagnosis of functional bowel disorder ranged from 61 – 547µg/g (mean 153µg/g) whereas FC values of those with organic conditions ranged from 63 – 1573µg/g (mean 746µg/g).

Conclusion The current manufacturer's cut-off at > 60µg/g is not clinically useful to diagnose an organic bowel pathology and further studies are needed to determine the true cut off value for a higher yield of a positive diagnosis. Cost effectiveness studies are also needed to determine referral cut off values.

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PTH-095 ARE IBD PATIENTS EITHER CRP PRODUCERS OR NON-PRODUCERS? A LONGITUDINAL STUDY

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Introduction C-reactive protein (CRP) is an established marker of disease activity in inflammatory bowel disease (IBD). However not all flares in IBD are associated with an elevated CRP. This raises the