The commonest indication for surgery was failure of medical management (48%). Surgical interventions included subtotal colectomy with ileostomy (18), extended right hemicolectomy (11), total colectomy (1) and limited ileal resection (1).

74% (n=14) of CD patients had no relapses in the follow up period after surgery. The average number of relapses (in 12 patients for whom data was available) came down from 2.3 in the year before surgery to 0.4 in year after surgery with a mean reduction of 1.9 (p=0.0001; 95% CI: 1.2 to 2.7). There was no statistically significant difference in the average number of acute readmissions between these periods. At one year after surgery the increase in mean SDS was 0.78 (p=0.01 CI: 0.2 to 1.3) for weight and 0.3 (p=0.002; CI: 0.13 to 0.46) for height.

UC does not recur after total proctocolectomy. Hence there were no relapses after surgery. In the six patients for whom data was available, there was an insignificant increase in the average number of hospital admissions from 1 in the year before surgery to 1.5 in the year after (mean increase 0.5; 95% CI: 1 to 2; p=0.45). At one year after surgery the change in mean SDS was -0.1 (p=0.5; CI: -0.4 to 0.2) for weight and 0.18 (p=0.07; CI: -0.02 to 0.4) for height.

Conclusions There was improvement in growth and reduction in number of relapses after surgery in CD patients. For UC patients no significant improvement was seen either in terms of readmissions or growth

G47(P)

NON-CASEATING SPLENIC GRANULOMAS, AS THE FIRST MANIFESTATION OF VERY EARLY-ONSET INFLAMMATORY BOWEL DISEASE

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Background *Splenic granulomas (SG)*, are rare and a challenge in terms of diagnosis and treatment. There is no reported incidence for SG and they usually appear in young adults. Our patient presented with SG, as an extra-intestinal manifestation of *Very Early-Onset Inflammatory Bowel Disease (VEO-IBD)*.

Case report We report the case of a 3 year old girl who developed multiple SG at the onset of Crohn's Disease (CD), making her, to our knowledge, the youngest patient reported to have this extra-intestinal manifestation of IBD.

She presented with a history of recurrent episodes of fever, vomiting, abdominal pain, weight loss and mouth ulcers. No infectious aetiology was found and she had normal immunological workup. Ultrasound (USS) of the abdomen showed hypoechoic splenic lesions. Splenic biopsy was performed, as despite an 8 week course of antibiotics there was no resolution of her symptoms and USS findings. Splenic biopsy showed non-caseating granulomas.

Her faecal calprotectin (FC) was raised, hence she had upper and lower gastrointestinal tract endoscopies and Video capsule endoscopy (VCE), which showed multiple ulcers throughout the small bowel, confirming a diagnosis of VEO-CD.

Results She was started on Modulen and Azathioprine, which improved her gut symptoms and the SG resolved on the USS. After the initial improvement her gut symptoms returned, so Infliximab was added to her management.

Four months after commencing Infliximab, she started developing symptoms again and her repeat FC was elevated. Repeat endoscopies and MRI reconfirmed the diagnosis of active CD. Both Azathioprine and Infliximab doses were increased, with some improvement of her symptoms. But Infliximab was later changed to Adalimumab as the Infliximab levels were persistently low. With just one loading dose of Adalimumab, she developing benign intracranial hypertension, hence was discontinued. She is currently on Thalidomide and Azathioprine, thriving well, while being monitored with regular abdominal ultrasound.

Conclusion Patients with VEO-IBD usually do not respond to first line treatment, therefore biologics are often used early on in this disorder. Further studies on VEO-IBD need to be undertaken to help us manage this unusual disease entity.

G48(P)

INCIDENTAL FINDINGS IN MRI-ENTEROGRAPHY IN PAEDIATRIC PATIENTS DIAGNOSED WITH INFLAMMATORY BOWEL DISEASE

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Aims Although coincidental findings in inflammatory bowel disease (IBD) patients detected on MRI-enterography (MRE) have been extensively discussed in the adult population, only very few papers have discussed such findings in children. The primary aim of this study was to determine the frequency of incidental findings detected in children with confirmed IBD undergoing MRE for diagnostic/staging purposes. The secondary aim of the study was to evaluate the clinical impact of such incidental findings.

Methods All MRE performed at a single centre from January 2014 to December 2016 were retrospectively analysed; only patients with a confirmed diagnosis of IBD were included. A random selection of MRE without incidental findings was reviewed by a consultant radiologist to inform that incidental findings were not missed previously (double reporting). The medical notes of children with incidental findings were retrospectively reviewed to inform the clinical impact of such findings.

Results A total of 190 patients underwent MRE over the three years, but 102 patients with a confirmed diagnosis of IBD were only included. Incidental findings were noted in 16 patients (15.6%); two were intestinal findings (probable small bowel intussusception) and the rest were extra intestinal findings. 50% (8 patients) of the incidental findings related to renal pathology (solitary kidney, cyst, duplex kidney, dilated pelvicalyceal system), 18.7% (3 patients) to spleen pathology (splenomegaly, cyst), 12.5% (2 patients) to prominent mesenteric lymphadenopathy, and 6.2% (1 patient) to gallbladder pathology (gallbladder stones) respectively.

In 7 patients (43.7%) (1 with kidney cyst, 2 with duplex kidney, 2 with dilated pelvicalyceal system, 2 with splenomegaly), further imaging studies (ultrasounds) were done. Incidental findings were re-confirmed in 4 of them; one patient with prominent splenomegaly required further haematology investigations and the other 3 patients with renal pathologies (1 with duplex kidney, 2 with dilated pelvicalyceal system) did not require further investigations.

Conclusion Incidental and unrelated findings were found in 15.6% of IBD patients undergoing MRE. Although many (43.7%) of these children required further imaging studies, only one patient from the entire cohort (1%) (massive splenomegaly) needed further investigations for a significant, previously unidentified pathology.

G49(P) REVERSAL OF CAROTID INTIMA-MEDIA THICKNESS WITH LIPID LOWERING THERAPY IN CHILDREN WITH FAMILIAL HYPERCHOLESTEROLAEMIA-CASE REPORTS OF TWO PATIENTS

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Background Children with heterozygous familial hypercholesterolaemia (FH) are known to have early asymptomatic morphological changes of the vessel wall. Measurement of the carotid intima-media thickness (CIMT) is a useful marker of endothelial function and effectiveness of lipid-lowering therapy. Reversibility of CIMT with statin therapy have been reported in adults. However, in children, only one RCT reports regression of CIMT with statins. We report two children with FH demonstrating a significant CIMT reduction following therapy.

Case1: A 16 year old male was diagnosed at 9 years with an extensive maternal history and a total cholesterol (TC) of 8.8 mmol/L, LDL-C 7.09 mmol/L. CIMT at diagnosis was normal at 0.3 mm bilaterally. Rosuvastatin was commenced at 10 years of age. Serial CIMT measurements over 4 years showed an increase to 0.7 mm prompting addition of Ezetimibe and an increase of Rosuvastatin to 20 mg daily. Subsequently, CIMT reduced to 0.4–0.5 mm bilaterally after 13 months. CIMT measurements have remained stable since. The latest profile – TC is 3.7 mmol/L, LDL-C 2.32 mmol/L.

Case 2: A 19 year old male, with a maternal history of FH, was diagnosed at 12 years of age with a TC 8.5 mmol/L and LDL-C 6.4 mmol/L. CIMT was increased at 1.0 mm bilaterally at diagnosis. He was treated with Rosuvastatin (maintenance dose 20 daily). Serial CIMTs were initially stable with no progression. Subsequently, 60 months after commencing statins, there was an improvement to 0.4 mm on both sides which has since remained stable. The latest profile- TC is 4.3 mmol/L, LDL-C 2.94 mmol/L.

No plaque disease was seen in either patients. CIMT was measured at common carotid arteries.

Discussion CIMT is a useful non-invasive method to help clinical decision making in children with FH. Serial measurements in our patients have shown that an abnormal CIMT is reversible in children following lipid lowering therapy. Further trials with CIMT as an outcome measure may be useful to determine the ideal age to commence statin treatment in children.

G50(P) VITAMIN D MONITORING IN COELIAC DISEASE – WHERE DO WE START?

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Aims Coeliac disease (CD) is a malabsorptive condition, which increases the risks of calcium and Vitamin D deficiencies, osteoporosis and pathological fractures when compared to the general population. Vitamin D monitoring and supplementation advice is not included in the 2013 British Society of Paediatric Gastroenterology, Hepatology and Nutrition (BSPGHAN) guideline. However NICE in 2015 has advised further research for paediatric patients. Current adult coeliac guideline advice is to monitor and supplement as required. We aim to contribute to the discussion for a consistent practice nationally for paediatric units.

Methods Retrospective casenote analysis of 40 patients with CD to assess when serum Vitamin D levels were done, and the number of patients requiring supplementation. Standardised proforma assessed blood tests and interventions within the first 12 months of diagnosis. This is because patients are deemed to be most vulnerable until their gluten free diet is fully established. Data was analysed using Excel software.

Results Patients ranged from age 13 months to 17 years at initial presentation. 17 patients (42.5%) had serum levels tested within the first year of diagnosis, but only 1 patient (2.5%) was tested at initial presentation, which was confirmed to be positive for deficiency. 6 patients (15%) required treatment, of which 5 were started in the first year of diagnosis. 1 patient (2.5%) required treatment twice, occurring at 5 and 7 years post diagnosis. 1 patient had a long bone fracture due to trauma, but with normal serum Vitamin D and bone profile levels.

Conclusions There is no current guidance on the frequency of monitoring Vitamin D levels for paediatric patients, and our practice reflects this. Monitoring serum Vitamin D levels in the first year of diagnosis is important as these patients are most vulnerable to developing mineral and vitamin deficiencies in this period. We propose that serum Vitamin D levels are checked at diagnosis, and annually thereafter.

G51(P) NUTRITIONAL RICKETS PRESENTING TO SECONDARY CARE IN CHILDREN (<16 YEARS) – A UK SURVEILLANCE STUDY

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Aims Rickets is a disease of growing children with serious short and long-term complications. Although the prevalence of rickets has been reported widely to be increasing the actual national incidence of nutritional rickets (NR) in the United Kingdom (UK) is unknown. This study aims to describe the incidence, presentation, and clinical management of children with NR in the UK and ROI.

Methods Data was collected prospectively monthly between March 2015–March 2017 from 3500 paediatricians using British Paediatric Surveillance Unit reporting methodology.

Results 130 cases met the case definition with an overall annual incidence of 5.04 cases per million children under 16 years.