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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10.1136/archdischild-2018-rcpch.47

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 Rouvastatin 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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10.1136/archdischild-2018-rcpch.48

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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10.1136/archdischild-2018-rcpch.49

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.