throughout the colon, and their histology revealed microscopic inflammation. Other patients with histologically active disease had normal CLDN8 expression.

Conclusion CLDN8 is significantly under-expressed in the UC colon. Outlier analysis has also identified a group of patients in whom CLDN8 is grossly under-expressed. Low expression of CLDN8 in UC could be secondary to inflammation, although the evidence presented here is against this. Reduced levels of CLDN8 could lead to a weak and permeable mucosa predisposing to UC by reducing barrier resistance and allowing penetration by microbes.

Competing interests None declared.

Adolescent and young people

PTU-131 RESPONSE TO ENTERAL NUTRITION PREDICTS INCREASED LENGTH OF REMISSION IN CHILDREN WITH CROHN'S DISEASE

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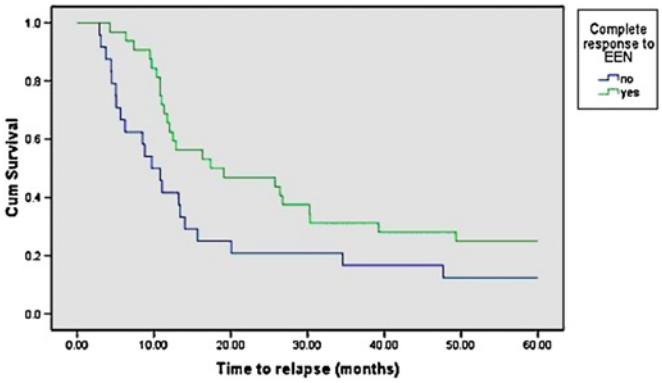
Introduction Exclusive enteral nutrition (EEN) is the primary therapy for children with intestinal Crohn's disease (CD) in the UK. We hypothesised that entering remission with EEN predicted a longer duration of remission.

Methods Retrospective data were obtained on children with CD from 2003 to 2006 at a tertiary paediatric gastroenterology centre. Response was determined by Physicians Global Assessment. Outcome measures investigated were: relapse rates, time to relapse, corticosteroid (CS) use and treatment escalation. Relapse was defined as worsening symptoms and/or increase in CRP with a change in medication. p Values of <0.05 were considered significant.

Results 75 children with CD were diagnosed between 2003 and 2006, in whom 62 had 5 year follow-up data available. 56 patients (90.3%) received EEN upon diagnosis. The others received 5-ASA [4] or antibiotics [2], and were excluded from the analysis. No patients received corticosteroids as initial treatment. The median age [range] at diagnosis was 12.87 [4.84–15.86] years. 62.5% [35] of patients had ileo-colonic disease. 94.6% [53/56] of patients tolerated EEN. 57.1% [32] of patients went into clinical remission with EEN. Corticosteroids were prescribed to those who failed to enter remission with EEN. Multivariate analysis showed no correlation between disease location (p=0.70), ethnicity (p=0.43), age (p=0.25) or CRP (p=0.73) and response to EEN. All of the patients with colonic disease relapsed over 5 years (n=7), compared to 79% [11/14] of patients with ileal disease and 77% [27/35] of patients with ileo-colonic disease (p=0.37). The patients who responded to EEN remained in remission significantly longer than the non-responders. Median time to relapse [range] over the 5 years was 17.4 [4.23–49.32] months in responders vs 9.72 [2.87–47.6] months in non-responders; p=0.041 (Abstract PTU-131 figure 1). 50% [16/32] of patients who responded to EEN had no corticosteroid use over the 5 years. There was no significant difference in those starting azathioprine between responders and non-responders (75% [23/32] vs 87.5% [21/24]; p=0.20), or in rates of infliximab (22% [7/32] vs 37.5% [9/24], p=0.24) or surgery (28% [9/32] vs 37.5% [9/24], p=0.57).

Conclusion This is the first study proving that achievement of clinical remission with EEN predicts an improved outcome for paediatric patients with Crohn's disease over the next 5 years. It is possible that this is due to improved mucosal healing in children responding to EEN.



Abstract PTU-131 Figure 1 Time to relapse in responders and non-responders to EEN (p=0.041) [log ran test—Kaplan–Meier survival analysis].

A.Rao and N.Kamperidis contributed equally and should be considered as joint first authors.

Competing interests None declared.

PTU-132 INCREASED DUODENAL INTRA EPITHELIAL LYMPHOCYTES (IELS) ARE ASSOCIATED WITH RECURRENT ABDOMINAL PAIN AND PARASITE INFECTION BUT NOT *HELICOBACTER PYLORI* IN A PAEDIATRIC CHILEAN COHORT

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Introduction Functional Recurrent Abdominal Pain (RAP) is a paediatric functional gastrointestinal disorder with poorly investigated pathophysiology. Proposed aetiology varies and the diagnosis is characterised by Rome III criteria. Some studies consider *Helicobacter pylori* to be a cause of RAP, while others disagree. The aim of this study was to investigate upper gastrointestinal pathology in a cohort of 123 children in Chile with respect to RAP, *H pylori* infection and other concurrent infection.

Methods This blinded retrospective and IRB-approved study analysed biopsies taken from the gastric antrum and body and the duodenum in 123 Chilean children referred to endoscopy (with informed parental consent). Histopathology was evaluated against a clinical database which included symptoms, symptom duration and endoscopy findings. Rome III criteria were used to assign RAP to the relevant cases. All patients had stool microbiology and parasitology. *H pylori* infection was assessed by serology and histology. In the duodenum, routine histopathology and also eosinophil counts (in 5HPF ×40 magnification), were performed by microscopy. IELs/100 enterocytes were counted. Independently those patients with IELs >25 had serology performed for coeliac disease.

Results Overall 105 patients were diagnosed with RAP and 12 patients were able to act as controls, having no symptoms of RAP or concurrent infection. The Rome III diagnosis of RAP was significantly associated with higher IEL counts (>20 in 74 patients) compared to controls (p=0.04). Furthermore, a higher IEL count was also positively associated with parasitic infection (nine with parasites) (p=0.02). Of 16 patients with lymphocytic duodenosis, (>25 IELs per 100 enterocytes) only three were infected by *H pylori*. One had coeliac disease with positive serology. Antral nodularity was observed in association with lymphoid follicles (p≤0.01) and *H pylori* infection (p<0.01). 28% in this cohort were positive for *H pylori* but infection was not