For the ABCB1 gene, G2677T/A allele frequencies were found to be similar to those reported in the literature. There was no association of G2677T/A or C3435T with clinical phenotype, or resistance to treatment. However, 77.3% of 22/222 patients who did not respond to therapy and required surgery, where found to carry both the C3434T and the G2677T mutation.

**Conclusion** Our study was conducted in a genetically homogenous population in the island of Crete. No correlation of any single SNP was found with either clinical activity or response to treatment. However, most patients who carried both the G2677T and C3435T mutations were refractory to treatment, a finding which implies that resistance to treatment in IBD patients is a more complex issue, which requires the presence of a genetic locus rather than a single SNP.

**Disclosure of Interest** None Declared.

**PTU-080** CORRELATION OF FDG PET SCANNING WITH ENDOSCOPIC FINDINGS IN PATIENTS WITH CROHN’S DISEASE

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**Introduction** 18F- Fluoro-deoxy-glucose Positron Emission Tomography (FDG-PET) scanning is gaining popularity in the assessment of several inflammatory disorders including Crohn’s Disease (CD).

**Methods** 11 patients with established CD, underwent 18F- FDG–PET scanning that was compared with recent endoscopic data, provided treatment had been unchanged between the two tests. Patients were fasted for 6 h and received 185 MBq of iv FDG followed by 800 ml of oral 2.5% mannitol. A low dose CT scan of the abdomen was performed, followed by PET, at 60 min post FDG injection. PET data was acquired over a maximum of 3 bed positions (10 min/ bed position).

Analysis involved dividing the gut into 6 segments on CT (terminal ileum, ascending, transverse, descending and sigmoid colon and rectum). Segmental maximum standardised uptake value (SUVMAX) and SUV intestine-to-liver ratio (SUVITL = SUVMAX/ Liver SUVMEAN) were calculated. A segment is defined as abnormal (PET +ve) when its SUV MAX > Liver SUV MEAN as per previous literature. SUVMAX and SUVITL of endoscopically abnormal versus endoscopically normal PET +ve segments were compared using the Mann-Whitney test.

**Results** 11 patients (52 gut segments) had PET within a median of 1 month of endoscopy. 21/52 segments were active on endoscopy. Of these 20/21 were also PET +ve. However, 17/31 of endoscopically negative segments were alsoPET +ve suggesting a sensitivity of 95% and a specificity of 45% in our cohort.

Raising the SUVMAX threshold for defining a PET +ve segment from the existing (>SUVLIVER) to > 3.5x SUVLIVER reduced sensitivity from 95% to 86%, but improved specificity from 45% to 82% compared to the gold-standard of endoscopy.

**Conclusion** FDG-PET appears to be up to 95% sensitive in identifying segments with endoscopically active CD.

Several ‘false positive’ segments are also observed conferring a low specificity.

A threshold of segmental SUVMAX signal > 3.5 x SUVLIVER greatly improves sensitivity with a mimar reduction in specificity.

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**Disclosure of Interest** None Declared.

**PTU-081** FAEecal CALPROTECTIN AND ILEAL CROHN’S DISEASE: CORRELATION WITH A SMALL BOWEL MRI SCORE FOR DISEASE ACTIVITY

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**Introduction** Small bowel MRI (SBMRI) is the current standard for assessing ileal inflammation in Crohn’s disease. Faecal calprotectin (FC) is closely correlated with colonic inflammation, but is thought to be of less utility in ileal disease. Interpretation of existing data linking FC with SBMRI findings have been confounded by the presence of colonic inflammation. We therefore aimed to ascertain how FC best reflects MRI findings exclusively in the small bowel.

**Methods** 150 SBMRI studies with matched FC results (±30 days) were identified from the Edinburgh FC Register (2008–12; n = 18,138). Scans were entered into an anonymous ‘teaching’ list on PACS and each re-read independently by 2 expert GI radiologists blind to all clinical and lab data. Technical, quality and disease parameters were recorded onto standard proforms. Scans rated by one or other radiologist as being of poor quality were excluded (n = 31/150). 7/13 disease parameters were excluded due to poor interobserver variability (Cohen’s kappa <0.5). A 6 item simple MRI score (range 0–10) was derived from assessment of the worst segment (bowel wall thickness, oedema, and relative enhancement, mesenteric oedema and pre-stenotic dilatation) plus total disease extent (overall kappa = 0.85). For comparisons with FC, studies where the radiologists reported upper GI or colonic inflammation were excluded (27/119).

**Results** 150 SBMRI scans were re-evaluated from 123 patients with purely ileal Crohn’s (Montreal L1, n = 109; L3 + previous panproctocolectomy, n = 14; 65% female; median age at MRI being of poor quality were excluded (n = 31/150). 7/13 disease parameters were excluded due to poor interobserver variability (Cohen’s kappa <0.5). A 6 item simple MRI score (range 0–10) was derived from assessment of the worst segment (bowel wall thickness, oedema, and relative enhancement, mesenteric oedema and pre-stenotic dilatation) plus total disease extent (overall kappa = 0.85). For comparisons with FC, studies where the radiologists reported upper GI or colonic inflammation were excluded (27/119).

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