Conclusions VDZ is associated with reduced hospitalisation and steroid use over 1 year. Steroid free remission rates and safety profile is in keeping with the published literature.

PWE-046 TH17 CELLS DOMINATE THE COLONIC MUCOSAL IMMUNE RESPONSE IN PRIMARY SCLEROSING CHOLANGITIS ASSOCIATED COLITIS

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Introduction Primary sclerosing cholangitis (PSC) is an idiopathic chronic cholestatic liver disease associated with ulcerative colitis (UC). PSC is thought to be a consequence of a genetically predisposition, dysregulated immune response and unknown factors including the gut microbiome. The colonic mucosal immune response in PSC associated colitis (PSC-UC), however, has been poorly defined. In this study, we analysed the characteristics of colonic mucosal CD4 T cells in patients with PSC-UC.

Methods Colon biopsies were collected from patients with PSC-UC (n=13), UC (n=10) and controls (n=20). One patient with PSC-UC and one patient with UC was on biologics. Three patients with PSC and three with UC had colonic inflammation. Lamina propria mononuclear cells were analysed by flow cytometry.

Results PSC-UC and UC were characterised by a significantly higher frequency of colonic mucosal CCR6 +CD161+Th17 cells compared to controls (17.5% vs 11.1%; p=0.009% and 21.02% vs 11.1%; p=0.01 respectively). CCR6-CXCR3 +CCR5+Th1 cells were significantly lower in PSC-UC compared to controls (15.46% vs 24.50% respectively; p 0.01). CD127-CD25+FoxP3+T regulatory cell frequencies was elevated and CCR6-CCR5-CXCR3- Th2 frequencies were reduced only in UC compared to controls (7.6% vs 4.38%; p=0.007% and 14.84% vs 8.77%; p=0.02 respectively). Significantly increased frequencies of IL17 producing CD4 cells were observed in both PSC-UC and UC compared to controls (7.75% vs 4.7%; p<0.001% and 7.251% vs 4.70%; p=0.006 respectively). Although there were no differences in TNF α and IFN γ producing CD4 cells, patients with PSC-UC had a

significantly higher frequency of IL17/IFN γ dual producing CD4 cells compared to controls (2.79% vs 1.76% respectively; p=0.03). Correlation analysis of PSC-UC and controls demonstrated that Th17 frequencies positively correlated with increasing frequencies of IL17 producing cells and negatively with Th1 (p<0.05).

Conclusions Our study demonstrates for the first time that the colonic mucosal immune response in PSC-UC is characterised by significantly higher Th17 cells and lower Th1 cells compared to controls. Patients with PSC-UC have higher IL-17 and IL17/IFN γ dual producing CD4 cells. Our findings highlight the need to explore the role of key players such as the gut microbiome in mucosal T cell homeostasis and Th1/Th17 plasticity in PSC.

PWE-047 THERAPEUTIC DRUG MONITORING FOR INFLIXIMAB & ADALIMUMAB IN IBD: PRACTICE PATTERNS, UNDERSTANDING & INTERPRETATION

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Introduction The use of therapeutic drug monitoring (TDM) for infliximab and adalimumab in the treatment of inflammatory bowel disease (IBD) is becoming increasingly commonplace. In cases of non-response (primary or secondary) TDM can provide a clearer understanding of the cause of treatment failure and offer a rationale for steps taken to recapture response. However, several factors regarding its use remain uncertain such as minimum therapeutic thresholds, the relevance of antidrug antibodies found in the presence of detectable drug, and the benefits of TDM during remission.

Methods We designed a survey that included 5 TDM-based clinical scenarios, for which the 'most appropriate' responses were based on the Building Research in IBD Globally (BRIDGE) groups 'Anti-TNF Optimizer' (<http://www.bridgeibd.com/anti-tnf-optimizer>). This resource combines available TDM evidence with expert consensus. A link to our online survey tool was sent to various IBD clinician groups in June 2017 including members of the British Society of Gastroenterology, Royal College of Nursing IBD Network and the gastroenterology special interest group of the UK Clinical Pharmacy Association.

Results We received 142 responses. Of these, 110 (77%) were complete, comprising 50 (45%) consultants, 30 (27%) trainees,

Abstract PWE-047 Figure 1 Lower therapeutic thresholds selected by respondents for IFX and ADA