PTU-088 NON-COELIAC GLUTEN SENSITIVITY CAN BE PRESENT IN INFLAMMATORY BOWEL DISEASE, NOT JUST IRRITABLE BOWEL SYNDROME

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10.1136/gutjnl-2014-307263.162

Introduction Self-reported gluten sensitivity (GS) commonly occurs in the absence of coeliac disease, and is termed non-coeliac gluten sensitivity (NCGS); a controversial, heterogeneous, clinical entity perceived by some to belong to the spectrum of irritable bowel syndrome (IBS) due its lack of putative biomarkers.
Aims We evaluated whether NCGS may be reported in organic gastrointestinal pathologies.
Methods A validated questionnaire screened for self-reported GS in four patient groups (cohort A); i) IBS, ii) crohns disease (CrD), iii) ulcerative colitis (UC) and iv) gastro-oesophageal reflux disease (GORD).

In addition, the prevalence of organic pathology in a seperate group presenting and diagnosed with NCGS was also determined (cohort B).
Results Cohort A: 59 cases of IBS (mean-age 32.7 yrs, 80% female), 75 CrD (mean-age 47.1 yrs, 59% female), 71 UC (mean-age 43.2 yrs, 68% female) and 109 GORD (mean-age 51.7 years, 61% female); p value for age < 0.001 and gender 0.05.

The presence of GS was 42.4% for IBS, 29% CrD, 25.3% UC and 18.3% for GORD. Adjusting for age and sex, IBS individuals were significantly more likely to self-report GS compared to individuals with GORD (p 0.02, OR 2.56, C. I 1.15–5.73). However, there was no difference in self-reported GS between IBS, CrD or UC.

In CrD the presence of strictures (p 0.04, OR 3.12, C. I 1.03–9.45) and CrD-activity index > 220 (p.0001, OR 8, C. I 2.45–2.62) were predictors of self-reporting GS. In contrast, a CrDAI score < 150 was supportive of not being GS (p 0.002, OR 5.35, C. I 1.8–15.9). The simple colitis activity score did not influence the presence or absence of GS in UC.

Cohort B: Analysis of 200 NCGS patients (mean-age 39.1 yrs, 83% female) shows that 3% were subsequently found to have organic pathology (two cases of UC, one case each of CrD and pyloric stricture).
Conclusion NCGS is not exclusive to IBS and can also be seen in established organic gastrointestinal pathologies, such as inflammatory bowel disease. Its presence may be reflecting severe and stenotic disease. Occasionally, NCGS may be the first presentation of organic pathology.
Disclosure of Interest None Declared.

PTU-089 INFLIXIMAB DOWN-REGULATES STAT 1, ALK AND P44/42 MAPK ACTIVATION IN CROHN'S DISEASE BIOPSIES CULTURED *EX VIVO*

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10.1136/gutjnl-2014-307263.163

Introduction Crohn's disease (CD) and ulcerative colitis (UC), the two main forms of inflammatory bowel disease, are characterised by increased mucosal activation of pro-inflammatory signalling molecules. The anti-tumour necrosis (TNF)-alpha monoclonal antibody infliximab is more effective in the treatment of CD than UC but its mechanism of action is still unknown. We therefore evaluated the effect of infliximab on the expression of a panel of phospho-proteins by inflamed CD and UC colonic biopsies cultured *ex vivo*.
Methods Colonic biopsies were obtained from macroscopically inflamed areas of 5 patients with CD and 2 patients with UC, and were then cultured for 24 h in 300ul of serum-free HL-1 medium with infliximab (5ug/ml), or control IgG1 (5ug/ml). The biopsies were then snap frozen and later lysed to extract the protein. A Path Scan RTK signalling array kit from New England Biolabs was used to measure the expression of a panel of 39 phosphorylated proteins in the biopsy homogenates.
Results Infliximab significantly reduced the expression of phosphorylated ALK, FLT3, EphB3,p44/42 MAPK, S6 Ribosomal Protein and Stat1 by over 40 fold compared to IgG1 in Crohn's disease biopsies cultured *ex vivo*. In UC biopsies infliximab did not induce any significant change in phosphoprotein expression compared to IgG1 control except for a 10 fold reduction in phospho-VEGFR2.
Conclusion Infliximab reduces the expression phospho-proteins Stat 1, ALK and p44/42 MAPK, which have a central role in sustaining the pro-inflammatory immune response. Differences in the effect of infliximab on the phosphorylation status of mucosal proteins may account for its different efficacy profile in CD and UC.
Disclosure of Interest None Declared.

PTU-090 10 YEAR RETROSPECTIVE REVIEW OF ABDOMINAL TUBERCULOSIS FROM A LONDON TEACHING HOSPITAL: AGE, ETHNICITY AND HIV STATUS

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10.1136/gutjnl-2014-307263.164

Introduction Although tuberculosis (TB) rates in United Kingdom have plateaued in recent years, areas with large high risk non-UK born population, which are predominantly centred in large urban areas, still have a high prevalence of TB. Extra-pulmonary TB, including abdominal TB, is much more common in non-UK born than in UK born population. The highest rate of TB in UK born is in the over 75 years of age population. Abdominal TB can mimic Crohn's disease and should always be considered as part of the differential diagnosis. We sought to review the demographics of patients with abdominal tuberculosis in a large urban teaching hospital in London.
Methods A retrospective review of patients treated at St George's Hospital, London, for abdominal TB from June 2003 to August 2013 was conducted. Information was gained from electronic patient records and the hospital's tuberculosis database.

Abstract PTU-090 Table 1

	Number (%)	Average age
South Asian	34 (52.3%)	42.3
African	25 (38.5%)	36.1
European Caucasian	5 (7.7%)	72.4
Caribbean	1 (1.5%)	28

Results 65 cases of abdominal TB were identified. Average age was 42 years (range 18–97). 49.2% females and 50.8% males. Ethnicity and mean ages are outlined in Table 1.

The mean age of European Caucasians was significantly older than from combined black and minority ethnic (BME) groups (72.4 v 39.5, p = 0.016). The number of cases over the 10 year period has remained stable, with an average of 6.5 per year (range 4–10). 13.85% were HIV positive. all in BME patients (1 South Asian, 8 Africans).

Conclusion Abdominal TB remains an active disease in London, affecting a wide range of ages and ethnicities, with the majority of patients South Asian and African, in accordance with national data. It should be considered as a differential in all patients, but particularly those who are at high risk. It presents as a disease of elderly Europeans and young BME groups. A significant number of BME group patients have HIV infection.

Disclosure of Interest None Declared.

PTU-091 ANTI-TNF THERAPY REDUCES IONISING RADIATION EXPOSURE IN PATIENTS WITH CROHN'S DISEASE

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10.1136/gutjnl-2014-307263.165

Introduction Patients with Crohn's Disease [CD] are often exposed to ionising radiation for the diagnosis and evaluation of disease with inherent risks from protracted exposure. Meanwhile, bolder definitions of disease control have changed treatment paradigms with earlier introduction of biological therapy in many. Our aim was to compare the effective radiation dose a year prior and 1 and 3 years after initiating anti-TNF therapy or corticosteroid.

Methods We performed a retrospective review of CD patients treated with anti-TNF (infliximab or adalimumab) or corticosteroids at our institution from 2005 to 2013. Clinical data (demographics, disease characteristics, treatment) were obtained from patient records. All instances of imaging in the previous year and 1 and 3 years after initiation of therapy were recorded. Effective and cumulative radiation doses were calculated from published tables [Royal College of Radiologists, UK].

Results We analysed 170 patients with CD (114 anti-TNF, 56 corticosteroid). In the anti-TNF group, 55% were female (median age 35 yrs;mean disease duration 8.2yrs). Disease location was ileal (46%), colonic (21%), ileocolonic (31%) and perianal (22%) with inflammatory, stricturing and penetrating disease in 63%, 14% and 23% respectively. In the corticosteroid group, 53% were females (median age 48; mean disease duration 13.2yrs). Disease location was ileal (44%), colonic (27%), ileocolonic (29%) and perianal (14%) with inflammatory, stricturing and penetrating disease in 75%, 20% and 5% respectively.

The anti-TNF cohort had a significant reduction in the cumulative radiation dose (4.2 *vs.* 1.8 mSv, p < 0.0001) compared to the previous year. There was no change in the cumulative radiation dose in the corticosteroid group (7.5 vs.7.3 mSv, p = 0.8). The number of CT scans reduced from 3.3 to 1.2 (p < 0.0001) in the anti-TNF cohort. There was no reduction the number of CT scans in the corticosteroid group after one year (2.7 *vs.* 2.5, p = 0.006).

In 31 patients with 3-year exposure to corticosteroids, there was a significant increase in the cumulative radiation dose (7.0 *vs.* 13.8 mSv, p < 0.0003) compared to the anti-TNF group (3.5 vs. 4.8 mSv, p = 0.7). There was a significant increase in the number of CT scans in the corticosteroid group (2.6 vs. 4.9, p < 0.001) compared to the anti-TNF group (2.5 *vs.* 2.8, p = 0.9).

Linear regression analysis showed a decrease in cumulative radiation dose by 2.7 mSv (p = 0.07) and number of CT scans by 2 (p < 0.001) in the anti-TNF group compared to the corticosteroid group within a year of therapy after adjusting for age, gender, disease duration, disease location and disease behaviour.

Conclusion Anti-TNF but not corticosteroid therapy is associated with a significant reduction in diagnostic radiation exposure a year after treatment and persisted after 3 years although not statistically significant

Disclosure of Interest None Declared.

PTU-092 PATIENT AND PROFESSIONALS PERCEPTIONS OF TRAVEL BEHAVIOUR IN INFLAMMATORY BOWEL DISEASE

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10.1136/gutjnl-2014-307263.166

Introduction Travellers with inflammatory bowel disease (IBD) are at greater risk of travel-related morbidity.[1] ECCO recommend patients seek expert advice prior to travel, including information on vaccination and obtaining antibiotics for self-treatment of travellers diarrhoea.[2] Wasan *et al.* report only 3.5% of patients on immunosuppression therapy were counselled on avoiding particular live vaccines[3] and 30% of gastroenterologists would erroneously recommend live vaccines.[4]

Methods We explored both patient and gastroenterology health care professionals (HCP) perceptions of IBD and travel: whether disease affected travel, interventions people took to travel, and whether ECCO guidelines were being followed. IBD patients attending our IBD clinic during November 2013 were asked to complete a questionnaire collecting demographic, disease specific and travel related information. Using N-ECCO and RCN IBD nurse network databases, HCP were asked to complete online questionnaire collecting information on perceptions of IBD and travel, confidence at providing travel advice, and the content of that advice.

Results 136 IBD patients (67[49%] Crohn's disease, 60[44%] male, median age 38 years[range 18–85]) and 105 HCP (98/105 [93%] nurse specialists, 6/105[6%] consultant, 1/105[1%] registrar) responded. 85%[106/136] patients report feeling adequately prepared for travel, although only 24%[32/136] seek travel medical advice of any kind and only 11%[15/136] from the IBD team; all despite 60%[82/136] reporting their IBD affected travel. Despite recommendations, only 4%[5/136] had been prescribed antibiotics for self-medication of travellers diarrhoea. 52%[36/69] of immunosuppressed patients are unaware they should avoid live vaccines. 39%[53/136] patients buy travel insurance covering IBD, 70%[37/53] of which pay a premium. 70%[74/105] HCP felt IBD might limit travel in patients. 70% [74/105] HCP are confident giving travel advice, but 51%[38/74] refer them to a travel clinic. 90%[94/105] are confident giving advice on travellers diarrhoea, but only 54%[57/105] on vaccinations and 40%[42/105] on insurance.

Conclusion Patients travel is affected by IBD, however, few seek expert medical advice prior to travel. HCP agree IBD affects travel and a majority are confident giving limited advice. It is concerning 52% of immunosuppressed patients are unaware they should avoid live vaccines, and only 54% of HCP are