PTH-123 IS AXIAL SPONDYLOARTHRITIS IN IBD DIFFERENT TO AXIAL SPONDYLOARTHRITIS WITHOUT IBD?

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Up to 40% of the patients with inflammatory bowel disease (IBD) have MRI evidence of axial spondyloarthritis compared to 1.5% in the non IBD population. Here we aim to distinguish axial spondyloarthritis associated with IBD (axSpA-IBD) from axSpA without IBD (axSpA-not IBD) and psoriatic axSpA (axSpA-PsA).

Method A collaborative group comprising of gastroenterologists and rheumatologists was formed between 2 healthcare trusts. Clinic lists and electronic operating systems were interrogated with appropriate ethical approval to identify patients with axSpA-IBD, axSpA-not IBD and axSpA-PsA. Patients were contacted prior to their clinic appointments and were sent stool containers. On the day of their clinic appointments, they were consulted for 15–30 minutes where their diseases were carefully phenotyped, drug history obtained, and informed consent taken. Stool and blood samples were collected and analysed for faecal calprotectin and acute inflammatory markers.

Results 62 patients were analysed for this study; 22 patients (10 Crohn's/12 UC) with axSpA-IBD, 24 with axSpA-not IBD and 16 patients with axSpA-PsA. Of the patients with IBD, 13 out of 22 (59%) were diagnosed with IBD first. Median duration of IBD before the diagnosis of axSpA was 3.5 years. Remaining 9 patients who were diagnosed with axSpA first, the median duration of disease before the diagnosis IBD was 3.5 years as well.

Median age of onset for joint disease in axSpA-IBD is 30 years compared to 27 and 22 in axSpA-not IBD and axSpA-PsA cohorts.

All three cohorts had gender predominance towards the male sex with 82% in axSpA-IBD, 86% in axSpA-not IBD and 94% in axSpA-PsA.

Association with HLA B*27 is stronger in the axSpA-not IBD group with 76% patients possessing the polymorphism compared to 50% in axSpA-IBD and 40% in axSpA-PsA. Median BASDAI (ankylosing spondylitis disease activity score) for axSpA-IBD, axSpA-not IBD and axSpA-PsA are 4.3, 3.95 and 3.2 respectively. Scores of above 4 indicate active disease.

Mean faecal calprotectin in axSpA-IBD is 233.7ug/g compared to 99.1 and 28.2 in axSpA-not IBD and axSpA-PsA.

Pearson correlation coefficient between faecal calprotectin and BASDAI scores was 0.0451.

Discussion In our cohort, we have shown that IBD related axial spondyloarthritis is different to axSpA-not IBD in terms of its weaker association with HLA B*27 antigen, higher degree of gut inflammation and increased age of onset for joint disease. Mean faecal calprotectin in axSpA-not IBD was still significantly higher than axSpA-PsA.

Weaker association with HLA B* 27 antigen in axSpA-IBD points to the possibility of a different genetic loci or mode of aetiopathogenesis.

Contrary to what we had expected, male gender predominance, joint disease activity and functional disability are similar across both axSpA-IBD and axSpA-not IBD group. We have also shown that there is no correlation between gut inflammation and joint disease activity ($R = 0.0451$) which again is consistent with previous findings that inflammatory axial disease is independent of gut inflammation.

PTH-124 THE USE OF TACROLIMUS IN PATIENTS WITH ULCERATIVE COLITIS RESISTANT TO STANDARD MEDICAL THERAPY

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Introduction BSG guidelines support the use of tacrolimus in selected adult or paediatric patients with ulcerative colitis (UC) resistant to standard therapy. Despite these guidelines, in our experience tacrolimus is used infrequently. We present the outcomes of 21 UC patients commenced on tacrolimus at Kings College Hospital NHS Trust.

Methods The King's College Hospital electronic patient records database was searched, including all records from January 2011 to October 2018. The search was performed using the terms, 'ulcerative colitis' and 'tacrolimus.' All records were interrogated to collect retrospective data.

Results Our search yielded a total of 275 patients. 191 were excluded as they were on tacrolimus for an indication other than UC. A further 59 were discounted as tacrolimus was never commenced. 4 were removed where tacrolimus topical ointment was used.

21 UC patients (16 adult, 5 paediatric) treated with tacrolimus were identified. Mean age was 29 years (range 9 – 62), M:F 13:8, 13 Caucasian, 4 Afro-Caribbean, 2 Asian and 2 unspecified. 81% had pancolitis, 3 left-sided disease and 1 proctitis.

All 21 patients had previously been treated with 5-aminosalicylates (5-ASAs) and steroids. In addition to the 5-ASAs and steroids: 12 patients were treated with both azathioprine (Aza) and a biologic; 4 patients only received Aza; 2 only a biologic; 1 only mycophenolate mofetil; 1 only mercaptopurine and 1 had no information.

Mean duration on tacrolimus was 11 months (median 5; range, 0 – 66). 2 patients were primary non-responders and 9 terminated therapy due to adverse drug effects such as tremor, nausea and renal toxicity. 10 (48%) patients had a sustained clinical response remaining on tacrolimus for a mean of 21 months. 1 remains on tacrolimus currently, but 9 patients have had disease recurrence, with 6 patients requiring a colectomy, at an average of 16 months after starting tacrolimus.

Faecal calprotectin (FCP) was used as an objective measure of disease activity. In patients on tacrolimus for a sustained period ($n=10$), there was a significant reduction in FCP. Mean FCP levels pre- and during treatment were 2574 and 381 respectively (mean difference 2197, CI 3237 to -1157, $p<0.001$) [figure 1].