size and frequency of SIJ BME as defined by the Aarhus scoring module,⁴ were compared across clusters.

Results: MCA and cluster analysis revealed 3 clusters. Cluster 1 was predominantly HLA-B27 positive (96.7%) with SIJ BME in half of the cases. Cluster 2 and 3 had SIJ BME in all cases. Cluster 3 had fewer features suggestive of axSpA than clusters 1 and 2. There were significant differences in frequency (3.0 vs 2.0 vs 1.0) and extent of BME (4.0 vs 2.0 vs 1.0) across clusters 1, 2 and 3.

Abstract THU0240 – Table 1. Cluster-wise comparison of the construction variables, frequency and size of sacroiliac joint bone marrow oedema*

Characteristic	All (n=134)	Cluster 1 (n=30)	Cluster 2 (n=45)	Cluster 3 (n=59)	p-value†
Male	42.5	53.3	40.0	39.0	NS
Age category (years)					
≤25	18.7	26.7	6.7	23.7	<0.05 ^{§§}
26–32	29.9	23.3	40.0	25.4	NS
≥33	51.5	50.0	53.3	50.8	NS
SIJ BME	88.8	50.0	100.0	100.0	<0.001 ^{§§}
HLA-B27 positive	30.6	96.7	17.8	6.8	<0.001 ^{§§}
Inflammatory back pain	58.2	73.3	95.6	22.0	<0.01 [§] , <0.001 ^{§§}
Arthritis	20.1	46.7	26.7	1.7	<0.001 ^{§§}
Heel enthesitis	19.4	26.7	35.6	3.4	<0.01 [§] , <0.001 [§]
Uveitis	2.2	3.3	4.4	0.0	NS
Psoriasis	4.5	3.3	8.9	1.7	NS
Inflammatory bowel disease	1.5	6.7	0.0	0.0	NS
Good response to NSAIDs	35.1	63.3	48.9	10.2	<0.001 ^{§§}
Family history of SpA [‡]	18.9	40.0	28.9	0.0	<0.001 ^{§§}
Elevated CRP	13.4	30.0	4.4	11.9	<0.01 [§] , <0.05 [§]
Among patients with SIJ BME					
Frequency of BME (1–8) [‡]	2.0 (2.0)	3.0 (5.0)	2.0 (2.0)	1.0 (1.0)	<0.01a, <0.001b, <0.05c
Size of BME (1–24) [‡]	2.0 (2.0)	4.0 (7.0)	2.0 (3.0)	1.0 (1.0)	<0.01a, <0.001b, <0.05c

* Values are percent of patients or medians with interquartile ranges; †Kruskal-Wallis and Dunn's test for multiple comparisons; ‡Cluster 1 vs Cluster 2; ‡Cluster 1 vs Cluster 3; ‡Cluster 2 vs Cluster 3; ‡missing in 2 patients; ‡Frequency of BME was defined as the total count of lesions, i.e. 4 locations per joint; ‡Size of BME was graded as slight(<25%), moderate (25% to <50%), or severe (≥50%) extent of BME in the cartilaginous and ligamentous part of the corresponding sacral and iliac subarticular bone area, i.e. 4 locations per joint, and combined into a total score.

Abbreviations: SIJ, sacroiliac joints; BME, bone marrow edema; MRI, magnet resonance imaging; HLA-B27, Human Leukocyte Antigen B27; NS, not significant; NSAIDs, non-steroidal anti-inflammatory drugs; CRP, C-reactive protein; NS, not significant

Conclusions: Three clusters were identified among LBP patients with findings suggestive of axSpA: 1 predominantly HLA-B27 positive cluster with SIJ BME in half of the subjects, and 2 clusters having less features suggestive of SpA and with SIJ BME in all subjects. The predominantly HLA-B27 positive cluster had more and larger BME lesions than the other 2, which may indicate individuals at risk for progression.

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THU0241

MUSCULOSKELETAL INVOLVEMENT IN INFLAMMATORY BOWEL DISEASE'S PATIENTS: A MONO CENTRIC EXPERIENCE

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Background: Musculoskeletal symptoms are frequently reported by patients with inflammatory bowel diseases (IBD). Those symptoms may vary from arthralgia to arthritis, involving peripheral or axial joints, with a prevalence ranging from 17% to 62% when considering any SpA manifestation (with a similar range for axial or peripheral involvement from 5% to 30%) and a definite SpA diagnosis up to 46%.^{1–10} To date, a more comprehensive approach is needed, also because the use of DMARDs or biologics could improve both gastrointestinal and musculoskeletal symptoms.

Objectives: To evaluate the rate of MSK involvement in a mono centric cohort of IBD patients.

Methods: A questionnaire based on the features of SpA was used in the IBD out-patient clinic from January 1st to December 31st 2017. When there was a positivity for any feature, the patients were evaluated by a rheumatologist (with more than 18 years of experience in SpA). All the visits were performed in 2–3 weeks from the moment the questionnaire was performed (varying according to the seasonal time for holidays). When there were some doubts about the diagnosis, further examinations were requested.

Results: A total of 403 patients were visited in the out-patient clinic (220 affected by CD, 172 affected by UC and 11 with a not defined IBD). Fifty-nine patients were sent to the rheumatologist (33 CD, 24 UC and 2 not defined IBD). Eleven patients had 2 or more rheumatologic visits (to follow-up the disease and check the results

of the exams requested). To allow a diagnosis, 4 sacroiliac joints MRI and 1 ultrasound assessment of the feet were requested. A diagnosis of peripheral SpA was given in 9 patients while axial SpA was diagnosed in 7 subjects. The diagnosis was fibromyalgia, osteoarthritis and arthralgia in 1, 2 and 40 patients, respectively. Therapy was modified in 16/59 patients after the rheumatologic assessment (DMARDs were prescribed in 12 subjects while anti-TNFα in 4 of them). In 1 patient (with absolute contraindication for biologic therapy), two courses of SI joint injection were performed, improving local pain.

Conclusions: The results of our study confirm the already published prevalence of musculoskeletal involvement in IBD patients (15% of our IBD population complained musculoskeletal pain and 27% of the patients sent to the rheumatologist were given an enteropathic arthritis diagnosis). As for the already existing literature, we did not notice any evident difference in the prevalence of axial and peripheral involvement. An established collaboration between gastroenterologists and rheumatologists is necessary to provide an integrated and more comprehensive management of IBD, improving the quality of life of the patients.^{11–12}

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THU0242

PREGNANCY OUTCOMES AND DISEASE ACTIVITY IN WOMEN WITH AXIAL SPONDYLOARTHRITIS: A SYSTEMATIC LITERATURE REVIEW

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Background: Women with axial spondyloarthritis (axSpA) are often affected by the disease during their reproductive years,¹ but reports on disease activity and pregnancy outcomes in these patients (pts) are sparse. In women with ankylosing spondylitis (AS), also currently termed as radiographic axSpA, a higher risk of disease activity flares and prevalence of adverse pregnancy outcomes have been reported vs healthy controls; however, in non-radiographic (nr)-axSpA pts, such data are virtually non-existent.^{2,3}

Objectives: To review the available evidence on the relationship between axSpA disease activity and pregnancy, including foetal outcomes.

Methods: A systematic literature review was conducted in October 2017 by searching EMBASE, MEDLINE[®], the Cochrane Database of Systematic Reviews, and the Database of Abstracts of Reviews of Effects. Publications were systematically screened for English language articles on observational studies of axSpA pts reporting pregnancy outcomes or disease activity during pregnancy. Studies utilising agents contraindicated in pregnancy were excluded. Supplementary searches of selected, 2016–17 conference proceedings and bibliographies of relevant review articles were also conducted.

Results: 2216 publications were reviewed, with 20 publications on 15 unique studies meeting the inclusion criteria. When utilising the verified disease activity measurement instruments, Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) or Ankylosing Spondylitis Disease Activity Score C-Reactive Protein (ASDAS-CRP), 5 studies (3 prospective, 2 retrospective) reported active disease (as described by individual studies; table 1) both during pregnancy and postpartum in most pts. Pregnancy outcomes in axSpA pts were compared with healthy controls in 6 studies (3 retrospective, 2 prospective, 1 case-control), the 3 largest of which (including 1 prospective) revealed higher risk or odds of preterm births in axSpA pts. Higher rates or risk of low birth weight/small-for-gestational-age neonates were shown in pts vs controls in 2/5 studies reporting such outcomes. Stillbirths, miscarriages or foetal loss/abortion were found to occur at similar rates in both populations.

Conclusions: Robust, prospective data on disease activity during pregnancies of women with axSpA are limited. Within the samples reported here, available data suggest that there may be a small increase in pre-term births; no signal for increased pregnancy loss was detected. Further research is needed to investigate relationships between maternal disease activity and pregnancy outcomes in axSpA.