(respectively PGA and PhGA) were rated on a 0–10 numeric scale, every 6 months during 2 years then at 3 years. Only patients with all data available for PGA and PhGA for each of the 6 visits were included. Repeated discordance was defined as an absolute difference |PGA–PhGA|≥3/10 for at least 3 of the 6 visits (i.e., at least half of the visits). Univariable and multivariable logistic models were used to determine if repeated discordance was associated at the 3 years timepoint, with prescription of TNFi, functional incapacity defined as HAQ>0.5, and remission defined as ASDAS-CRP<1.3.

Results: Of 401 patients, mean age 34.6±8.7 years, mean symptoms duration 17.8±10.7 months, 219 (54.6%) were female and mean ASDAS-CRP at baseline 2.7±1.0. At 3 years 140 (34.9%) patients had been prescribed a TNFi, 172 (43.2%) had HAQ>0.5 and 89 (25.1%) were in remission. Over the 6 visits, mean PGA was higher than mean PhGA with a mean absolute difference of 0.8±2.2 points. Discordance concerned 110 (27.4%) patients at baseline and repeated discordance concerned 92 (22.9%) patients. In multivariable logistic regression, after adjusting on the others significant factors (which included MRI sacro-iliitis, HLA-B27 and ASDAS-CRP at baseline), repeated discordance was associated with more functional incapacity (61% vs 38%, odds ratio, OR 2.85 [95% CI 1.49–5.62]) and less remission (10% vs 30%, OR 0.38 [0.15–0.85]) but not more TNFi use (34% vs 35%, 1.39 [0.78–2.54] p=0.27).

Conclusions: In early axSpA, repeated discordance concerned 22.9% of patients confirming the frequency of this situation. Repeated discordance was associated with worse outcomes at 3 years, even after adjustment of other factors including baseline ASDAS, indicating for the first time that discordance may indeed reflect an unsatisfactory management of medical care leading to worse outcomes. Future studies should concentrate on understanding the reasons of patient-physician discordance for disease activity in axSpA.

References:

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FRI0474 DOES AXIAL SPONDYLOARTHRITIS PHENOTYPE CORRELATE WITH IMAGING MORPHOTYPE?

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Background: Traditionally, radiographic imaging was used to describe morphological differences between various types of axial SpA (axSpA). The advent of MRI has advanced understanding of disease, enabled earlier diagnosis and visualization of structural changes, and facilitated the identification of non-radiographic axial SpA (nr-axSpA). The magnitude of the pathologic changes in the axial skeleton is used to quantify inflammatory and structural outcomes of clinical trials and treatment of patients with axSpA.

Objectives: To examine the MRI morphology of sacroiliitis (SI) and vertebral corner lesions in patients with primary (1°, no psoriasis) and secondary (2°, with psoriasis) axSpA.

Methods: This posthoc analysis was performed on data from patients with axSpA enrolled in the EMBARK trial (NCT01258738). Only patients with baseline MRI lesions were included. Symmetric and asymmetric SI, structural lesions, and corner inflammatory lesions were analyzed in 1° axSpA vs 2° axSpA patients. Data were analyzed using one-way analysis of variance for continuous parameters, chi-square tests, or Fisher's exact tests for categorical parameters.

Results: The baseline demographics and disease characteristics between the 122 patients with 1° axSpA and 19 with 2° axSpA were similar. Asymmetric sacroiliitis was seen in significantly fewer 1° (43%) vs 2° (68%) axSpA patients. There were no differences in mean SpondyloArthritis Research Consortium of Canada (SPARCC) scores between 1° and 2° axSpA for any of the 4 SI joint (SIJ) quadrants. However, the lower iliac quadrants had the highest SPARCC SIJ score and the upper iliac quadrants had the lowest SPARCC SIJ scores. When analyzing the 4 spine quadrants (lower/upper anterior and lower/upper posterior), 1° patients had higher total SPARCC spine scores than 2° patients for all 4 quadrants at baseline. Collapsing the 4 quadrants shows that 1° axSpA patients had higher SPARCC MRI of the entire spine (23 discovertebral units [DVU]; mean=5.7) compared with 2° axSpA patients (mean=2.7).

Conclusions: We found 1° axSpA patients had more symmetric sacroiliitis and extensive spinal bone marrow edema compared with 2° axSpA patients. In addition, women appeared to have more asymmetric sacroiliitis. These data may help physicians accurately diagnose patients and decide best treatment options.

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FRI0475 ANTI-CD74 ANTIBODIES AS DIAGNOSTIC BIOMARKER FOR EARLY AXIAL SPONDYLOARTHRITIS: DATA FROM THE SPONDYLOARTHRITIS CAUGHT EARLY (SPACE) COHORT STUDY

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Background: Diagnosis of axSpA is often delayed with 5–10 years. A robust biological disease marker is lacking and could decrease the current diagnostic delay. Two studies showed that serum anti-CD74 IgG antibodies are increased in SpA[1,2].

Objectives: To explore the value of anti-CD74 antibodies as diagnostic biomarker for axSpA in patients with early, chronic back pain.

Methods: We tested the prevalence of anti-CD74 IgG and IgA antibodies in patients from the SPondyloArthritis Caught Early (SPACE) cohort by enzyme-linked immunosorbent assay (ELISA). Patients from the SPACE cohort have chronic back pain for >3 months and ≤2 years with an onset <45 years.

Results: We included 560 patients of the SPACE cohort, of whom 274 patients were diagnosed with axSpA by a rheumatologist at baseline. Anti-CD74 IgG levels did not differ between patients with and without axSpA (p=0.152, Table 1). Median anti-CD74 IgA levels (tested with either casein or BSA as a blocking buffer) were higher in patients with axSpA (both p<0.0001). Despite these differences at the group level, the diagnostic value of the anti-CD74 IgA antibodies was limited as shown by ROC analysis. The optimal cut off according to ROC analysis was an optical density (OD) of 0.875, providing a sensitivity of 38.3% and a specificity of 77.6%. In line with previous reports, further analysis revealed that total IgA levels were elevated in early axSpA patients vs. non-SpA early back pain patients (p=0.008). When correcting the level of anti-CD74 IgA for the level of total IgA, the differentiating capacity of anti-CD74 disappeared for casein but remained intact for BSA (casein: p=0.731, BSA: p=0.038). Additional analyses using the ASAS classification criteria rather than a clinical diagnosis of axSpA, a strict combination of clinical diagnosis and ASAS classification criteria (excluding patients fulfilling the ASAS axSpA criteria without a clinical diagnosis and vice versa) (Table 1) and using the clinical diagnosis at 1 year of follow-up yielded similar results.

	Axial SpA (baseline)			ASAS axSpA criteria (baseline)			Diagnosis and ASAS axSpA positive (baseline)		
	Yes (n=274)	No (n=286)	*P*-value	Yes (n=224)	No (n=351)	*P*-value	Yes (n=108)	No (n=177)	*P*-value
anti-CD74 IgA (casein, OD)	0,73	0,57	**<.0001**	0,74	0,58	**<.0001**	0,78	0,55	**<.0001**
anti-CD74 IgA (BSA, U/mL)	19,92	14,02	**<.0001**	22,55	14,20	**<.0001**	21,82	13,47	**<.0001**
anti-CD74 IgG (OD)	0,50	0,52	0,152	0,49	0,52	.054	0,50	0,52	0,075
anti-CD74 IgA (IC, OD)	0,59	0,6	0,653	0,54	0,62	.112	0,54	0,61	0,383
IgA total (g/dL)	3,94	3,39	**0,008**	3,79	3,51	.084	3,92	3,38	**0,017**
ratio IgA (casein) / IgAtotaal	0,17	0,17	0,731	0,17	0,17	.614	0,18	0,17	0,435
ratio IgA (BSE) / IgAtotaal	4,35	3,56	**0,038**	4,37	3,70	.070	4,37	3,39	**0,036**
ratio IgA IC / IgAtotaal	0,18	0,18	0,387	0,18	0,18	.388	0,17	0,19	0,294

Table 1. Levels of IgG and IgA anti-CD74 antibodies, total IgA and anti-CD74/total IgA ratios in patients from the SPACE cohort. Values are expressed as median and compared using Mann-Whitney U testing. Diagnosis and ASAS axSpA positive: patients diagnosed as axSpA and fulfilling the ASAS axSpA criteria vs. patients not diagnosed as axSpA and not fulfilling the ASAS axSpA criteria.

Conclusions: Serum anti-CD74 IgA antibody levels, but not serum anti-CD74 IgG levels, are elevated in patients with axSpA versus non-SpA with back pain of <2 years duration. However, ROC analyses revealed that these numerical differences are of limited diagnostic value in these patients with early back pain.

Abstract FRI0474 – Table 1

Parameter	Total (n=141)	1° axSpA with			2° axSpA with			P value
		Symmetric SI (n=63)	Asymmetric SI (n=52)	Non-SI (n=7)	Symmetric SI (n=4)	Asymmetric SI (n=13)	Non-SI (n=2)	
Age, y	32.1 (7.4)	30.9 (6.8)	32.5 (7.8)	35.3 (7.3)	29.3 (7.9)	33.5 (6.2)	47.0 (2.8)	0.2132
Male, n (%)	92 (65.3)	46 (73.0)	27 (51.9)	4 (57.1)	4 (100)	9 (69.2)	2 (100)	0.0896
Symptom duration, y	2.6 (1.9)	2.4 (2.2)	2.6 (1.5)	2.7 (1.6)	1.8 (1.5)	3.2 (1.6)	2.9 (1.6)	0.2944
SPARCC MRI SIJ score	10.5 (9.9)	15.9 (10.4)	5.4 (5.1)	2.1 (0.2)	27.5 (10.2)	5.9 (4.1)	2.5 (0.7)	0.0007
Left SPARCC SIJ	5.2 (6.0)	7.9 (6.1)	3.1 (5.3)	0.8 (0.3)	10.4 (7.4)	1.8 (2.1)	1.3 (0.4)	0.0004
Right SPARCC SIJ	5.4 (6.2)	8.0 (7.0)	2.3 (2.5)	1.4 (0.2)	17.1 (6.3)	4.0 (5.0)	1.3 (0.4)	0.0542
SPARCC MRI 6 DVU spinal score	4.7 (6.8)	6.4 (8.5)	3.8 (5.5)	2.4 (2.1)	1.6 (3.3)	2.6 (3.4)	0.8 (1.1)	0.0133
SPARCC MRI 23 DVU spinal score	5.3 (9.3)	7.5 (12.2)	4.0 (6.0)	2.4 (2.1)	1.6 (3.3)	3.4 (5.3)	0.8 (1.1)	0.0335
Fat metaplasia	0.5 (1.6)	0.3 (0.9)	0.9 (2.5)	0 (0)	0.3 (0.5)	0.7 (1.1)	0 (0)	0.6805
Erosions	2.6 (3.5)	4.2 (4.0)	1.1 (2.0)	0.3 (0.4)	3.1 (1.8)	1.0 (1.9)	0 (0)	0.0002

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[2] Baerlecken, N. T. et al. Autoantibodies against CD74 in spondyloarthritis. Ann. Rheum. Dis. 73, 1211–4 (2014).
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FRI0476 ANTI-CD74 ANTIBODIES: DIAGNOSTIC PROPERTIES IN LOW HLA-B27 EARLY AXIAL SPONDYLOARTHRITIS

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Background: Axial spondyloarthritis (AxSpA) is a severe and potentially debilitating disease, where earlier diagnosis lead to a better prognosis. Although HLA-B27 antigen is strongly associated with AxSpA, this marker may have a low sensitivity in some Middle-Eastern countries. Recent European studies showed a strong association between antibodies against CD74 and AxSpA with a sensitivity of 85.1%, specificity of 92.2%, and positive likelihood ratio (LR) of 10.8. The diagnostic properties of anti-CD74 may have a particular interest in non-European countries with low HLA-B27 such as Lebanon.
Objectives: In this prospective study, we tested the diagnostic properties of IgG and IgA anti-CD74 as an early diagnostic marker for AxSpA, compared with HLA-B27, in Lebanon, which is known as one of the countries with the lowest HLA-B27 prevalence ever reported.
Methods: Sera of AxSpA patients and healthy blood donors (HBD) were analyzed for HLA-B27 genes (PCR) and for IgG and IgA anti-CD74 (ELISA). The patients were recruited from rheumatology clinics across Lebanon. Clinical assessment and sera sample collection were performed at a center specialized in AxSpA (Hotel-Dieu de France University hospital, Beirut). Inclusion criteria were: age 18–45 years, Lebanese, symptom duration <3 years, AxSpA as per ASAS criteria (imaging arm), no prior biologic therapy. Interpretation of the radiographic images was performed centrally and blindly. Clinical and laboratory assessments of the disease were performed in all AxSpA patients. Comparison between groups was performed with the Fisher exact test and Student's test. For the diagnostic properties of HLA-B27 and anti-CD74, ROC curves were calculated.
Results: 29 AxSpA patients and 75 HBD were tested. AxSpA patients were slightly older (31.3 and 27.4 yo, respectively, p=0.02). Male gender was slightly predominant (51.7% and 53.6%, respectively). 93% had all characteristics of IBP as per ASAS criteria. 62.1% had non radiographic AxSpA. Mean disease duration was 25.2 months (SD 15.9), mean BASDAI 4.5 and mean ASDAS 3.25. 58.6% had extra-articular manifestations (28% enthesitis, 24% psoriasis, 21% peripheral arthritis, 10% IBD and 7% uveitis). 27.6% had familial history of SpA (21%), psoriasis (10%) and Crohn's disease (3.4%). HLA-B27 status was positive in 10 AxSpA patients and in 2 HBD (Sensitivity 34.5%, Specificity 97.2%, Positive LR 12.24). In the ROC analysis, IgG4 anti-CD74 showed the best diagnostic properties for AxSpA (AUC 0.939, cut-off value 0.55). Using this cut-off value, positive values of IgG anti-CD74 were found in 27 axSpA patients and 5 HBD (Sensitivity 93.1%, Specificity 93.3%, positive predictive value 84.4%, negative predictive value 97.2%). Positive LR was 13.97. Anti-CD74 was positive in 58.6% HLA-B27 negative AxSpA (Fig1).

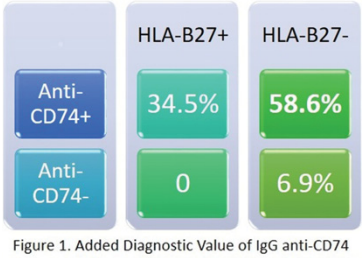

Figure 1. Added Diagnostic Value of IgG anti-CD74 compared to HLA-B27 in Early Axial Spondyloarthritis

Conclusions: In this study in a population with low HLA-B27 prevalence, IgG anti-CD74 antibodies showed higher diagnostic value than HLA-B27 for AxSpA. This is of special interest in populations with low HLA-B27 prevalence, especially on the background of diagnosing AxSpA when using the clinical arm of the ASAS classification criteria.
Disclosure of Interest: None declared
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FRI0477 PROSPECTIVE OBSERVATIONAL STUDY ON THE EVALUATION OF QUALITY OF LIFE IN PATIENTS AFFECTED BY ENTEROPATHIC SPONDYLOARTHRITIS

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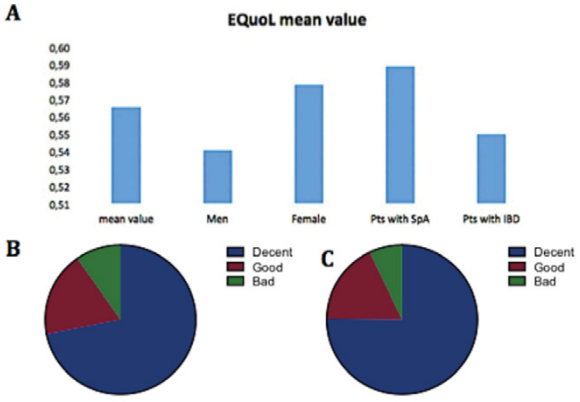
Background: Enteropathic Spondyloarthritis (ESpA) belongs to the group of Spondyloarthritis (SpA) tipically associated with inflammatory bowel disease (IBD) as Crohn's Disease (CD) and Ulcerative Colitis (UC). Joint pain is the most common (22–33%) and significant extra-intestinal manifestation in patients with IBD and its management requires reumatological and gastroenterological competence in collaboration. No data concerning the Health-related quality of life (HRQoL) have been evaluated in patients affected by ESpA.
Objectives: Prospective study was performed in a combined GastroIntestinal and RHEumatologic "GI-Rhe" clinic, in order to evaluate: 1) prevalence and characteristics of articular manifestations in a group of IBD patients; 2) quality of life, state of health and well-being in ESpA patients.
Methods: Patients affected by IBD who presented muscolo-skeletal pain between February 2013 and September 2016 (CD 264 and UC 142) were enrolled. New diagnosis, disease management, adverse events as well as laboratory evaluations were assessed every 3 months during the follow-up. Disease activity, function and quality of life in ESpA patients were assessed by ASDAS-CRP, HAQ-S and EuroQol questionnaire.
Results:

Table 1

	IBD-SpA (N=212)	IBD non-SpA (N=215)
Age (years)	47±13.1	48.3±14.8
Male (n/%)	134/63.2	131/60.9
CD (n/%)	141/66.5	122/56.7
UC (n/%)	71/33.5	93/43.3
SpA disease duration (months)	37±75	NA
IBD disease duration (months)	162.2±115.3	166.6±14.8
CRP (mg/dL)	1.2±8.6	1.2±5.1
CDAI >150 (n/%)	26/18.4*	10/8.2*
Mayo score >3 (n/%)	11/15.5*	0/0*
HAQ-S	0.5±1.3	NA
ASDAS	2.1±1	NA

Data are expressed as mean ± SD. *IBD-SpA versus IBD-non SpA.

A total of 427 patients were evaluated for joint involvement (Table 1). The prevalence of SpA in IBD patients was 49.6% (n=212: UC 71 (43.3%), CD 141 (53.4%)), suggesting that the majority of patients with IBD who complain arthralgia may have a concomitant SpA. Other rheumatologic diseases were detected in the study population in 215 patients defined as IBD non-SpA. There was a significantly higher prevalence of active intestinal disease in patients with SpA with respect to IBD-non SpA (CD: CDAI>150 in 18.4% vs 8.2% p=0.004; UC: Mayo score >3 in 15.5% vs 0%, p=0.0004). The evaluation of the EuroQoL demonstrated a mean value of 0.59 in IBD-SpA patients and of 0.55 in IBD non-SpA (Figure 1A). In IBD-SpA, the health related status was: decent 69.8%, good 17.9% and bad 9.4%. In IBD-non SpA, the health related status was: decent in 74.8%, good in 17.7% and bad in 7% of patients. In both groups, none of the patients had a neither exceptional nor great perception of QoL. No significant differences were observed between the two groups (Figure 1B-C).



Distribution of the health state in the study population

Conclusions: The joint clinic facilitates diagnosis and management of SpA and IBD. Although IBD-SpA patients showed higher IBD disease activity than IBD-non SpA one, both groups of patients have a good health related QL.
Disclosure of Interest: None declared
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