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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 (Fig 1).

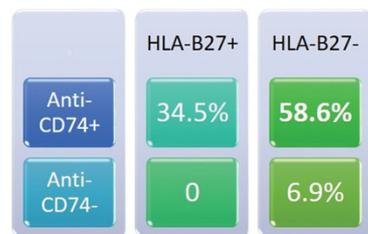


Figure 1. Added Diagnostic Value of IgG anti-CD74 compared to HLA-B27 in Early Axial Spondyloarthritis

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.

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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) typically 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 rheumatological 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 musculo-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.

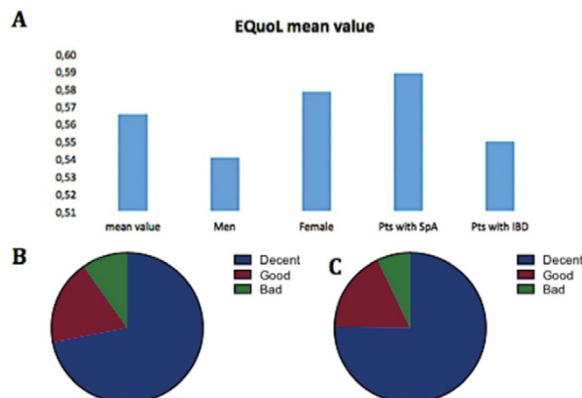
Results:

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).



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.

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