on the discrimination between AS patients and controls (AUC 0.827 in young males).

Table 1. Demographic and clinical characteristics

	nr-axSpA	AS	control
	n = 150	n = 58	n = 14
Age, y (mean, SD)	31 (6.9)	32 (7.4)	30 (7.0)
Male, n (%)	68 (45.3)	26 (44.8)	4 (28.5)
Symptom duration, m (median, IQR)	35 (13 - 98)	111 (27 - 176)	-
HLA B27 positive, n (%)	103 (68.7)	48 (82.8)	-
Peripheral manifestations, n (%)	41 (27.3)	18 (31.0)	-
Extra-articular manifestations, n (%)	32 (21.3)	19 (32.8)	-
BASDAI (mean, SD)	4.4 (1.97)	4.1 (2.03)	-
CRP > ULN, n (%)	45 (30.0)	33 (56.9)	-

Table 2. Performance of anti-CD74 IgA in discriminating nr-axSpA from controls, according to sex and age (young: <32 y/o). AUC= area under the curve, PPV/NPV = positive/negative predictive value, LR+ = positive likelihood ratio.

	Cut-off (U/mL)	AUC	Sensitivity (%)	Specificity (%)	PPV (%)	NPV (%)	LR+
Male & young	16.9	0.806	65.8	92.3	96.2	48.0	8.6
Male & old	17.4	0.795	55.6	92.3	93.8	50.0	7.2
Female & young	16.7	0.647	50.0	92.3	94.4	41.4	6.5
Female & old	16.9	0.741	46.8	92.3	95.7	42.2	6.0

Figure 1. Univariate comparison of anti-CD74 IgA concentrations between nr-axSpA, AS and control patients (<45 y/o).

Conclusion: In this study, mean anti-CD74 IgA concentrations were higher in axial SpA patients compared to non-SpA controls. Application of this biomarker in young (<32 y/o) male nr-axSpA or AS patients yielded the highest sensitivity and specificity.

References:

- [1] Riechers E, Baerlecken N, Baraliakos X, et al. Sensitivity and Specificity of Autoantibodies Against CD74 in Nonradiographic Axial Spondyloarthritis. *Arthritis Rheumatol.* 2019;71(5):729-35.

Acknowledgments: Aesku.Diagnostics (Wendelsheim, Germany) provided the ELISA kits.

Disclosure of Interests: Ann-Sophie De Craemer: None declared, Torsten Witte: None declared, Liselotte Deroo: None declared, Thomas Renson: None declared, Philippe Carron: None declared, Filip van den Bosch Consultant of: AbbVie, Celgene Corporation, Eli Lilly, Galapagos, Janssen, Novartis, Pfizer, and UCB, Speakers bureau: AbbVie, Celgene Corporation, Eli Lilly, Galapagos, Janssen, Novartis, Pfizer, and UCB, Xenofon Baraliakos Grant/research support from: Grant/research support from: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB and Werfen, Consultant of: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB and Werfen, Speakers bureau: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB and Werfen, Dirk Elewaut: None declared

DOI: 10.1136/annrheumdis-2020-eular.4099

FRI0313

DOES INTERSTITIAL LUNG DISEASE REPRESENT A REAL COMORBIDITY IN SPONDYLOARTHRITIS PATIENTS? RESULTS FROM AN ULTRASOUND MONOCENTRIC PILOT STUDY

A. Delle Sedie¹, E. Calabresi², I. Romagnoli¹, L. Carli¹, M. Mosca¹. ¹University of Pisa, Rheumatology Unit, Pisa, Italy; ²Medical University of Pisa, Pisa, Italy

Background: Interstitial lung disease (ILD) is a frequent complication in rheumatoid arthritis (RA) where it represents the most common extra-articular involvement (with a prevalence of about 10-60%) and the second cause of mortality (after cardiovascular diseases). Spondyloarthritis (SpA) are chronic arthritides that share with RA both a similar disease burden and similar therapeutical approaches. ILD evaluation is challenging, given the low sensitivity of X-ray and pulmonary function tests, and radiation linked to repetitive HRCT. Lung Ultrasound (LUS) has shown potential in the evaluation of ILD in autoimmune diseases.

Objectives: To assess the prevalence of ILD in a cohort of SpA patients (pts) using LUS with respect to healthy controls (HC).

Methods: Consecutive SpA out-pts were examined by LUS, applying the definition for pleural line irregularity (PLI) recently provided by the OMERACT taskforce for LUS in systemic sclerosis (1). Seventy-one intercostal spaces were studied (14 in the anterior chest, 27 lateral and 30 posterior) in all the pts/HC using an Esaote MyLab25 Gold US machine with a linear 7.5-10 MHz probe. The scoring system by Pinal-Fernandez et al (2) was applied and a total pleural score was calculated. Each patient answered to Italian-validated PROs on respiratory function (Leicester and Saint-George), global health (SF-36) and dyspnea (mMRC scale). Clinical data on disease-duration, disease-onset, disease-activity (at the moment of the examination) and MTX/biologics treatment were collected from the medical records.

Results: Fifty-six SpA pts (35 psoriatic arthritis -PsA- and 21 ankylosing spondylitis -AS-) and 56 HC were studied. No significant differences were demonstrated between groups (SpA vs HC and PsA vs AS) for age, sex, BMI and smoking habits. The total pleural score was significantly higher in SpA pts than in HC (20.9±11.8 vs 10.3±7.7; p<0.001). A positive correlation was found between total PLI score and PLI score from anterior, posterior and lateral chest. The posterior part of the chest showed a higher PLI score than the anterior and lateral one (with the latter resulting to be significantly lower than the posterior PLI score). Higher differences in the PLI average value between SpA pts and HC were registered for posterior and anterior part of the chest. No differences were found between PsA and AS (with a not statistically significant difference in the posterior PLI score, which was slightly higher in AS pts) (Tab.I).

Table 1. average PLI score (N±SD)

	Total	Anterior	Posterior	Lateral
HC	10.3 ± 7.7	4 ± 3.2	5 ± 3.7	1.4 ± 2.2
PsA	20.1 ± 12.5	6.8 ± 3.9	10.2 ± 6.9	2.9 ± 4.1
AS	22.1 ± 10.7	7 ± 2.8	12 ± 9.5	3 ± 3.1

Conclusion: LUS examination shows a higher amount of PLI in SpA with respect to HC.

References:

- [1] Delle Sedie A et al. *Ann Rheum Dis* 2019;78(Suppl 2):A834
[2] Pinal-Fernandez I et al. *Clin Exp Rheumatol* 2015;33(4 Suppl 91):S136-41
Disclosure of Interests: Andrea Delle Sedie Speakers bureau: MSD, Lilly, Novartis, Abbvie, Celgene, Emanuele Calabresi: None declared, Ilaria Romagnoli: None declared, Linda Carli: None declared, Marta Mosca: None declared

DOI: 10.1136/annrheumdis-2020-eular.4616

FRI0314

ANNUAL DIAGNOSTIC PREVALENCE OF ANKYLOSING SPONDYLITIS (AS) IN THE UNITED STATES USING MEDICARE AND MARKETSCAN DATA

J. Curtis¹, K. Winthrop², B. Chan², S. Siegel², J. Stark³, R. Suruki⁴, R. Bohn⁴, F. Xie¹, H. Yun¹, L. Chen¹, A. Deodhar². ¹University of Alabama at Birmingham, Birmingham, United States of America; ²Oregon Health & Science University, Portland, United States of America; ³UCB Pharma, Smyrna, United States of America; ⁴UCB Pharma, Raleigh, United States of America

Background: Axial spondyloarthritis (axSpA) is a chronic inflammatory disease that affects the axial skeleton and sacroiliac joints, and can be classified as ankylosing spondylitis (AS) or non-radiographic (nr)-axSpA.¹ A 2016 analysis estimated the US diagnostic prevalence of axSpA to be 0.2% and AS to be 0.1%.² Previous studies use disparate populations and diagnostic definitions;^{3,4} it is therefore unclear how AS prevalence has changed over time.