Roche, UCB, Speakers bureau: Consultancy / speaker fees from: Abbvie, BMS, Celgene, Lilly, MSD, Novartis, Pfizer, Roche, UCB, Valeria Rios Rodríguez Consultant of: Abbvie, Novartis, Martin Rudwaleit Consultant of: Abbvie, BMS, Celgene, Janssen, Eli Lilly, MSD, Novartis, Pfizer, Roche, UCB Pharma, Denis Poddubnyy Grant/ research support from: Abbvie, MSD, Novartis, and Pfizer, Consultant of: Abbvie, Bristol-Myers Squibb, Eli Lilly, MSD, Novartis, Pfizer, Roche, UCB, Speakers bureau: Abbvie, Bristol-Myers Squibb, Eli Lilly, MSD, Novartis, Pfizer, Roche, UCB
DOI: 10.1136/annrheumdis-2020-eular.4862

AB0717

THE ASAS-HEALTH INDEX MAY BE USEFUL TO IDENTIFY DISEASE ACTIVITY STATES IN PATIENTS WITH SPONDYLOARTHRITIS.

S. Alonso Castro¹, E. Pardo Campo¹, L. C. Charca Benavente¹, M. Pino Martínez¹, S. Fernández¹, L. M. Arboleya Rodríguez¹, M. Alperi-López¹, R. Queiro Silva¹. ¹Hospital Universitario Central de Asturias, Rheumatology, OVIEDO, Spain

Background: Patients with spondyloarthritis (SpA) suffer not only from pain or physical disability, but they are also affected in multiple facets of life due to this condition (disease impact). Recently, the ASAS group has proposed a new way of capturing the impact that SpA have on patients' lives, based on the principles proposed by the International classification of functioning, disability and health (ICF). The tool obtained (ASAS-health index or ASAS-HI) includes 17 items that cover most ICF domains.

Objectives: To analyze the performance of ASAS-HI in real clinical practice, by comparing it with other standard measures of evaluation of SpA. To assess whether ASAS-HI is able to identify disease activity states in these patients.

Methods: This cross-sectional study included 111 consecutive patients with SpA (ASAS criteria). The correlation (Spearman's rho) between ASAS-HI, BASDAI, ASDAS, and BASFI was analyzed. ROC curves were constructed to analyze ASAS-HI values that determined BASDAI remission, ASDAS inactive disease, and ASDAS low activity. A logistic regression was made to determine the ASAS-HI items with greater capability to discriminate the state of remission / inactive disease.

Results: Seventy-four men and 37 women were included, mean age of 43.3 ± 10.6 years. The average duration of illness was 7.6 ± 6.8 years. Sixty percent of the series was under biological therapy. HLA-B27 was positive in 79.3%. The average value of ASAS-HI was 5.4 ± 3.8 . There were significant correlations between ASDAS and BASDAI (rho: 0.89, $p < 0.0005$), BASDAI and BASFI (rho: 0.86, $p < 0.0005$), BASFI and ASDAS (rho: 0.78, $p < 0.0005$), BASDAI and ASAS-HI (rho: 0.77, $p < 0.0005$), ASDAS and ASAS-HI (rho: 0.70, $p < 0.0005$). The optimal cut-off point of ASAS-HI for BASDAI remission (Table 1) corresponded to a value ≤ 2 . As for the value of ASAS-HI to define ASDAS inactive disease (Table 2), this was ≤ 0 . For ASDAS low activity, the value was ≤ 6 [area under the ROC curve 0.82 (95% CI: 0.73-0.89), Sen: 89.5%, Spe: 66.1]. In the multivariate regression, the two ASAS-HI items associated with BASDAI non-remission were, "I often get frustrated" [OR 9.2 (95% CI: 1.2-69.4), $p = 0.032$], and "I sleep badly at night" [OR 7.7 (95% CI: 1.4-41.6), $p = 0.018$]. As for ASDAS, the only question of ASAS-HI significantly associated with active disease was "pain sometimes disrupts my normal activities" [OR 8.7 (95% CI: 1.7-45.2), $p = 0.010$].

Conclusion: ASAS-HI correlates well with most outcome measures in SpA. A cut-off point of ASAS-HI ≤ 6 identifies a low disease activity and could be considered a good treatment objective. The evaluation of SpA should include not only conventional measures (BASDAI / ASDAS) but also disease impact measures (ASAS-HI).

Table 1.

Area under the ROC curve (AUC)	0.883	95% CI	0.809-0.936	p-value	<0.0001
Optimal cut-off point	≤ 2	Sensitivity	65.71	Specificity	96.05

Table 2.

Area under the ROC curve (AUC)	0.873	95% CI	0.797-0.929	p-value	<0.0001
Optimal cut-off point	≤ 0	Sensitivity	58.82	Specificity	94.68

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.4892

AB0718

DIAGNOSTIC PERFORMANCE OF VARIOUS CLASSIFICATION CRITERIA IN LOW BACK PAIN PATIENTS WITH SUSPECTED AXIAL SPONDYLOARTHRITIS: A PRAGMATIC STUDY.

A. Ramon¹, C. Foyolle², H. Devilliers³, C. Piroth⁴, I. Herrada⁴, G. Attane⁵, D. Wendling⁶, P. Ornetti⁴. ¹Dijon University Hospital, Rheumatology, DIJON, France; ²Dijon University Hospital, Rheumatology, DIJON, France; ³Dijon University Hospital, Internal Medicine, Dijon, France; ⁴Dijon University Hospital, Rheumatology, Dijon, France; ⁵Dijon University Hospital, Radiology, Dijon, France; ⁶Besançon University Hospital, Rheumatology, Besançon, France

Background: In routine practice, axial spondyloarthritis (SpA) can be a diagnostic challenge because there is potential overlap with osteoarthritic low back pain or diffuse polyalgic syndrome with axial pain as fibromyalgia. Internationally recognized classification criteria (AMOR, ASAS (1), ESSG (2)) are often used as diagnostic tools in clinical practice (3), but few studies have sought to establish their "real life" diagnostic performances.

Objectives: This monocentric study aimed to evaluate the diagnostic performance of different sets of classification criteria for SpA in patients with chronic back pain hospitalized for suspected axial SpA. The second objective was to evaluate the impact of the sacroiliac MRI reading according to the ASAS MRI reading or expert musculoskeletal reading.

Methods: Patients presenting with inflammatory low back pain who underwent standardized sacroiliac MRI protocol were consecutively included. The diagnoses obtained with the classification criteria (AMOR, ESSG, Modified AMOR and Modified ESSG (with sacroiliac MRI)) were compared to the gold standard diagnoses (made by a college of three experienced rheumatologists). Two readings of the sacroiliac MRI were performed (ASAS MRI reading and Expert MRI reading (including all inflammatory or structural T1 or T2 STIR abnormalities)). Diagnostic performance was measured for each set of classification criteria: sensitivity, specificity, predictive positive and negative values (PPV, NPV) and positive and negative likelihood ratios (PLR, PLN). The clinical, biological and MRI factors associated with axial SpA diagnosis were identified in a multivariate logistic regression model.

Results: 83 patients were included of which 27 had axial SpA according to the opinion of the college of rheumatologists. The AMOR modified criteria (with ASAS MRI reading) had the highest diagnostic performance values, with sensitivity = 96%, specificity = 71%, NPV = 97%, PPV = 54%, PLR = 3.3, and NLR = 0.06. Sacroiliac MRI reading demonstrated poor sensitivity (< 60%) for SpA (ASAS or expert reading), while expert reading of MRI had high specificity (98%), NPV = 90%, PPV = 78%, and PLR = 18. In multivariate logistic regression, the presence of enthesitis (OR = 3.51, IC95% [1.10;11.21]; $p = 0.024$), positive HLA B27 (OR = 4.22, IC95% [1.25;14.18]; $p = 0.02$) or sacroiliitis on MRI (ASAS reading) (OR = 3.34, IC95% [1.04; 10.76]; $p = 0.043$) were independently associated with the final diagnosis of SpA.

Conclusion: The results of this pragmatic study suggest that the Modified AMOR criteria with ASAS MRI reading can be used to rule out axial spondyloarthritis (NPV = 97%). However, the use of an MRI ASAS reading alone creates a risk of false positives because of the greater impact on ASAS criteria compared to AMOR or ESSG criteria. Further international studies are needed to decrease the rate of false positives in suspected cases of axial spondyloarthritis in routine practice.

References:

- [1] Dougados M, van der Linden S, Juhlin R et al. The European Spondylarthropathy Study Group preliminary criteria for the classification of spondylarthropathy. *Arthritis Rheum* 1991;34:1218-27.
- [2] Rudwaleit M, van der Heijde D, Landewé R et al. The development of Assessment of SpondyloArthritis international Society classification criteria for axial spondyloarthritis (part II): validation and final selection. *Ann Rheum Dis*. 2009;68:777-83.
- [3] Gazeau P, Cornec D, Timsit MA et al. Classification criteria versus physician's opinion for considering a patient with inflammatory back pain as suffering from spondyloarthritis. *Joint Bone Spine* 2018;85:85-91.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.2351

AB0719

CLINICAL FEATURES OF PATIENTS WITH ANKYLOSING SPONDYLITIS AND SECONDARY AA-AMYLOIDOSIS

D. Rumiantceva¹, E. Agafonova¹, S. Krasnenko¹, M. Podryadnova¹, A. Starkova¹, M. Urumova¹, S. Erdes¹. ¹V.A. Nasonova Research Institute of Rheumatology, Moscow, Russian Federation

Background: Secondary AA-amyloidosis is one of the most serious complications of ankylosing spondylitis (AS). Better knowledge of specific to secondary AA-amyloidosis clinical features is important for improving further management of these patients.

Objectives: To conduct a comparative analysis of AS patients with and without secondary AA-amyloidosis.

Methods: The study included 220 AS patients (according to modified New York criteria) without amyloidosis - Group 1, and 9 AS patients with histologically confirmed secondary AA-amyloidosis - Group 2.

Results: Table 1 presents the comparative characteristics of Group 1 and Group 2 patients. Both groups were comparable in terms of patients' age, rates of HLA B27 positivity, presence of enthesitis, uveitis, inflammatory bowel diseases (IBD), and psoriasis on assessment. Group 2 patients tended to be younger at AS onset, while shorter disease duration and fewer male patients were established for Group 1. Group 2 had higher rates of extra-spinal AS manifestations, such as arthritis and coxitis. It should be noted that all AS patients with secondary AA-amyloidosis were males, with clinically manifest arthritis, involving hip joints, and AS onset in the childhood in 8 out of 9 cases.