Conclusions: Inflammatory lesions, fat metaplasia and erosions were most frequently occurring in patients with axSpA, but also in women with postpartum pain. The SPARCC-scores cannot separate the different groups entirely. Further detailed analysis of lesions may help differentiate axSpA from other conditions.

REFERENCES:

Disclosure of Interest: None declared

Abstract OP0246 – INFLAMMATION ON MRI OF SPINE AND SACROILIAC JOINTS IS HIGHLY PREDICTIVE OF STRUCTURAL DAMAGE IN AXIAL SPONDYLOARTHRITIS: THE 5 YEARS DATA OF THE DESIR COHORT

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Background: The effect of local inflammation on structural damage in patients (pts) with axial spondyloarthritis is not well known.

Objectives: We aimed to test the possible effect of inflammation on structural damage both assessed by MRI and at the level of the spine and the SIJ.

Methods: Pts with recent onset (0–3 years) axSpA (according to the treating rheumatologist) from the DESIR cohort were included. MRI of the SIJ (MRI-SIJ) and spine (MRI-spine) were obtained at baseline (BL), 2 and 5 years and scored by 3 trained central readers unaware of the chronology. Bone Marrow Oedema (BME) at MRI-SIJ was assessed according to ASAS definition and at the MRI-spine by the presence of ≥3 lesions. Structural damage in the SIJ (MRI-SIJ-STR) and in the spine (MRI-spine-STR) was defined by ≥3 fatty lesions. Then of structural net progression (number of ‘progressors’ minus the number of ‘regressors’ divided by the total number of pts) was assessed in subgroups according to CRP and BME status at BL. The effect of BME on MRI-SIJ on MRI-SIJ-STR and of BME on MRI-spine on MRI-spine-STR was evaluated using two types of binomial generalised estimating equations (GEE) models: i. effect at BL on 5 years incorporating repeated measurements from all readers (GEE adjusted for reader); ii. effect of BME over 5 years adjusting for variables proved to confound the association of interest (variables included: age, gender, HLA-B27, smoking status, CRP, BASDAI, ASDAS, treatment with NSAIDs and TNFi).

Results: In total, 151 and 145 pts had complete 5 year MRI-SIJ and MRI-spine data available from 3 readers, respectively. Of the 151 pts with complete MRI-SIJ data, the net% pts who switched from MRI-SIJ-STR negative to positive ranged from 3.8% to 24% according to the baseline objective inflammatory markers:

Results: In total, 151 and 145 pts had complete 5 year MRI-SIJ and MRI-spine data available from 3 readers, respectively. Of the 151 pts with complete MRI-SIJ data, the net% pts who switched from MRI-SIJ-STR negative to positive ranged from 3.8% to 24% according to the presence of objective signs of inflammation at BL (figure 1). Low number of pts did not allow for similar analysis in the spine. In the multivariable analysis, both the presence of BME at MRI-SIJ (OR=4.2 [95% CI: 2.4 to 7.3]), and BME at MRI-spine (OR=8.9 [95% CI: 2.1–38.7]) at baseline were highly predictive of MRI-SIJ and MRI-spine structural progression respectively 5 years later, adjusting for CRP (only factor found to confound the association of interest). Similar positive associations were found in the longitudinal models testing the effect of BME on MRI-SIJ-STR and MRI-spine-STR over 5 years (table 1).

Conclusions: Our results show that local inflammation is strongly associated with the development of structural damage over 5 years both in the SIJ and spine in early axSpA and that this effect is independent of systemic inflammation.

Disclosure of Interest: None declared

Abstract OP0247 – PERFORMANCE OF REFERRAL STRATEGIES FOR SPONDYLOARTHRITIS: A POPULATION-BASED NATIONWIDE STUDY

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Background: Several strategies have been proposed to promote early referral of patients with axial spondyloarthritis (axSpA), but consensus on the best strategy is yet to be achieved. Moreover, few studies compared referral strategies (RS) head-to-head and, to up to now, none has neither evaluated these in a ‘nationwide’ setting (external validity) nor assessed the entire spectrum of SpA (i.e. axSpA and peripheral SpA).

Objectives: To evaluate the performance of the screening strategy for SpA of a nationwide epidemiological study (EpiReumaPt), as compared to previously proposed RS.

Methods: EpiReumaPt was a three-stage national health survey (2011–2013) where, in the first phase, 10 661 adult participants were randomly selected and interviewed using a structured face-to-face questionnaire that included screening for rheumatic diseases (RD), such as SpA. In the second phase, positive screenings for ≥1 rheumatic complaint plus ≥20% negative screenings were invited for an assessment by the rheumatologist. Finally, 3 rheumatologists revised all the information and defined the final diagnosis by consensus. All participants of the second phase were included (n=3,877). Each RS (table 1) was tested against the SpA revised diagnosis using the following metrics: sensitivity, specificity, positive predictive value (PPV), and post-test probability of disease given a negative test (1-negative predictive value). RS with an imaging (e.g. MRI) or laboratory component (e.g. CRP, HLA-B27) were modified (by excluding these components) given limited data obtained in the survey (table 1). A weighting factor was used to take the survey design into account.

Results: From the total 3877 participants, 92 received a SpA diagnosis [weighted prevalence: 1.6% (95% CI: 1.2 to 2.1)], 3107 other RD diagnosis [e.g. knee osteoarthritis (31%) and 678 no RD diagnosis. The ASAS RS was the most sensitive strategy for SpA (1-NPV: 1.5%; pre-test probability: 1.6%), but consensus on the best strategy is yet to be achieved. Moreover, few studies compared referral strategies (RS) head-to-head and, to up to now, none has neither evaluated these in a ‘nationwide’ setting (external validity) nor assessed the entire spectrum of SpA (i.e. axSpA and peripheral SpA).

See abstract OP0246 for details on the methods used to determine the association of local inflammation with structural damage.

Conclusions: Inflammatory lesions, fat metaplasia and erosions were most frequently occurring in patients with axSpA, but also in women with postpartum pain. The SPARCC-scores cannot separate the different groups entirely. Further detailed analysis of lesions may help differentiate axSpA from other conditions.

Disclosure of Interest: None declared
Conclusions: For the first time, a wide range of SpA RS were tested head-to-head in a population-based setting where the ASAS and EpiReumaPt RS were head in a population-based setting where the ASAS and EpiReumaPt RS were presented to be the most sensitive. Our data suggest that these methods can be effectively used as screening tools for SpA especially when laboratory and imaging data are not available.

Disclosure of Interest: None declared


OP0248

POTENTIAL DIFFERENCES IN AXIAL SPONDYLOARTHRITIS DISEASE ACTIVITY CATEGORYORIZATION USING DIFFERENT MINIMUM VALUES FOR HIGH-SENSITIVITY CRP IN ANKYLOSING Spondylitis DISEASE ACTIVITY SCORE CALCULATION AND DIFFERENT DEFINITIONS OF DISEASE FLARE


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Background: It has been recommended that the lower limit of high-sensitivity CRP (hsCRP) be restricted to 2 in the Ankylosing Spondylitis Disease Activity Score (ASDAS) calculation. Also, a definition of flare of ASDAS increase ≥ 0.9 was recently proposed.

Objectives: Using non-radiographic axial SpA (nr-axSpA) trial data, this analysis evaluated potential differences in patient (pt) categorization using different minimum values for hsCRP in the ASDAS calculation and different definitions of disease flare.

Methods: ABILITY-3 (NCT01808118) assessed the impact of continuation versus withdrawal of adalimumab (ADA) in nr-axSpA pts who achieved sustained remission with open-label ADA. All pts received open-label ADA 40 mg every other wk during a 28-wk lead-in period. Pts who achieved remission, defined as ASDAS inactive disease (ID, ASDAS < 1.3) at wks 16, 20, 24, and 28 were randomized to 40-wk, double-blind ADA (continuation) or PBO (withdrawal). ASDAS was calculated with the full range of hsCRP (protocol-defined) and limiting hsCRP to the lowest possible value of 2 mg/L (redefined). Flare was calculated as 2 consecutive study visits with ASDAS ≥ 2.1 (protocol definition) or with ASDAS increase ≥ 0.9 (modified definition). Data are reported as observed (open label) and by nonresponder imputation (double blind).

Results: 673 pts were enrolled. At open-label baseline, mean ASDAS using the protocol-defined ASDAS calculation was 3.6 vs 3.7 when rederived. At wk 28, 29 (43.8%) pts achieved protocol-defined ASDAS ID vs 272 (40.4%) pts using the rederived ASDAS; mean ASDAS at double-blind baseline was 0.7 vs 0.9, respectively. At wk 68, significantly more pts treated with ADA vs PBO had no flare per protocol definition (69.7% vs 47.1%; p<0.001; table 1). Similar results were observed with modified definitions (table 1). At wk 68, significantly greater proportions of ADA vs PBO pts achieved ASDAS endpoints (all p<0.001), with similar results for protocol-defined and rederived ASDAS calculations, respectively: ID (57.2% vs 33.3% and 52.0% vs 29.4%), major improvement (58.6% vs 32.0% and 50.0% vs 30.7%), and clinically important improvement (67.1% vs 45.1% and 67.1% vs 44.4%).

Conclusions: At both open-label and double-blind baseline, mean ASDAS was similar, regardless of the hsCRP value cut-off used. Fewer pts in both treatment groups were categorised as not experiencing a flare when limiting the lowest possible hsCRP value to 2 mg/L in the ASDAS calculation and/or using a modified flare definition. However, treatment differences remained similar compared with the protocol-defined methodology. Results suggest infrequent clinically relevant differences in ASDAS values with use of either definition for minimum hsCRP and that the use of ASDAS ≥ 2.1 or ASDAS increase ≥ 0.9 as the definition of flare is reasonable.

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OP0249

THE CONTRIBUTION OF STRUCTURAL MRI LESIONS TO DETECTION OF SACROILIITIS IN PATIENTS IN THE ASSESSMENTS IN SPONDYLOARTHRITIS INTERNATIONAL SOCIETY (ASAS) CLASSIFICATION COHORT


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Background: Active lesions of axial spondylodiscitis (axSpA) in the sacro-illiac joint (SIJ) were reported by local site readers in about 40% of patients in the ASAS classification cohort (ASAS-CC) when this study was conducted over 10 years ago. There has been no data reported on the occurrence of structural lesions in this cohort. Since this study was conducted, there has been considerable progress in our understanding of SIJ lesions observed on MRI, which raises the possibility that MRI scans of patients in the ASAS-CC could now be interpreted substantively differently.

Objectives: To determine the added contribution of structural lesions in the SIJ to the evaluation of sacroiliitis in an inception cohort of patients with axSpA.

Methods: Recently updated MRI lesion definitions for axSpA (ASAS_MRI def) were recorded in an eCRF that comprises global assessment (lesion present/absent) and detailed scoring (SPARCJ SIJ inflammation, SPARC J SIJ structural). MRI scans were available in a variety of formats (DICOM (n=175), JPEG (n=71), DCM film (n=32)) and sequences, axial and semicoronal orientations, from 278 of the 495 cases who had MRI performed in the ASAS-CC. Image quality