AS, as both diseases belong to the spondyloarthritis group. 1100 patients with inflammatory rheumatic diseases provided the basis of RH-GIOP, a prospective study monitoring glucocorticoid (GC)-induced osteoporosis in patients with rheumatic diseases. RH-GIOP was established in 2015 at the Charité University Hospital. Bone mineral density data were measured by dual x-ray absorptiometry (DXA).

Methods: 92 patients with PsA (65% female) were compared with 51 patients suffering from AS (35% female). Potential risk and protective factors (e.g. data on GC treatment, anti-rheumatic therapy), laboratory parameters (e.g. Vitamin D, alkaline phosphatase, C-reactive protein and inflammatory markers) and functional status (e.g. Health Assessment Questionnaire, sporting activities, back pain) were compared between these groups. Statistical analysis was performed descriptively using mean and standard deviation, t-tests for metric variables, and chi-square tests for nominal variables. Due to the heterogeneous gender distribution, an additional statistical matching was performed to compare patients matched by age and gender.

Results: Patients with PsA displayed significantly higher minimal T-scores than patients with AS (p=0.003) even though patients with AS were younger and more often male (p<0.001). AS patients showed a higher frequency of osteoporotic bone densities (p<0.05), however, no differences in the frequency of osteoporotic bone densities were found. Body-mass-index (BMI) was significantly higher (p<0.001) in PsA patients. PsA patients showed a higher frequency of csDMARD use (p<0.001). Additional analyses among PsA patients with and without csDMARDs revealed also significantly higher minimal T-scores in PsA patients taking csDMARDs (90% Methotrexate), and both groups showed the same average of age and gender distribution. Furthermore, AS patients complained significantly more often of back pain (96 % vs. 74%, p=0.001) than PsA patients. No differences in GC use or cumulative GC dose were found. All results could be confirmed when groups were matched by age and gender.

Conclusion: Our results demonstrate that patients with PsA display higher bone density compared to age and gender matched patients with ankylosing spondylitis. Possible influencing factors could be the higher frequency of csDMARD use, higher BMI or the lower frequency of back pain in PsA patients. Multivariate tests and additional biomarker investigations in larger cohorts are necessary to corroborate these findings and to identify underlying pathogenic differences which could serve for an explanation.

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SAT0373

QUANTITATIVE ASSESSMENT OF RESPONSIVENESS IN SACROILIAC JOINTS MRI OF PATIENTS WITH AXIAL SPONDYLOARTHRITIS: A PILOT STUDY.

C. Garrido-González1, M. D. C. Castro Villegas2, M. Ladehesa Pineda1, J. L. Garrido-Castro1, R. Ortega Castro2, C. González-Navas3, R. Parco-Montesio3, R. Almodovar4, A. Bueno5, L. M. Molinero6, E. Collantes Estevez7 on behalf of COSPAR Study Group. 1Maimonides Biomedical Research Institute of Córdoba, Córdoba, Spain; 2Hospital Universitario Reina Sofia, Córdoba, Spain; 3Hospital Universitario Fundación Alcorcón, Madrid, Spain; 4ALCE Ingeniería, Madrid, Spain

Background: The presence of inflammatory signals in sacroiliac joints (SIJ), using MRI, is used for early diagnosis of axial spondyloarthritis (axSpA) [1]. Some studies also demonstrate that this inflammation can be suppressed quite dramatically by TNF-α blockers. Different scoring methods to quantify inflammatory changes in SIJ using MRI have been defined and validated: SPARC, Leeds, Berlin, and ASSPiMRI-a. However, its use is complex and insufficient to produce an index: the SCAISS. A simplified version, the s-SCAISS, procedure, allows to measure the area affected by inflammation and the signal intensity compared to age and gender. A good correlation was found between improvement in s-SCAISS and BASMI (rho=-0.72;p<0.05). The best correlation according improvement measures appeared comparing reduction of ASDAS with reduction of s-SCAISS (rho=0.57) but this difference was not significant. Although improvements in BASMI was not significant, a good correlation was found between improvement in s-SCAISS and BASMI (rho=0.72;p<0.05).

SAT0374

ONSET OF AXIAL SPONDYLOARTHRITIS: REPERCUSSIONS ON PATIENTS’ SOCIAL AND FAMILY LIFE: RESULTS FROM THE EUROPEAN MAP OF AXIAL SPONDYLOARTHRITIS (EMAS).

M. Garrido-Cumbraa1,2, V. Navarro-Compañ3, C. Bundy4, R. Mahapatra5, S. Máñez5, S. Sanz-Gómez6, L. Christen7, C. J. Delgado-Dominguez7, D. Podtubny8 on behalf of EMAS Working Group. 1Health & Territory Research (HTR), Universidad de Sevilla, Sevilla, Spain; 2Spanish Federation of Spondyloarthritis Associations, Madrid, Spain; 3IdiPAZ, University Hospital of Madrid, Spain.

Results: 9 axSpA patients were recruited from the COSPAR cohort (44% female, age 47±13 years, disease duration 18±14 years, BMI 29±4). Results PRE and POST are shown in Table: mean values (sd), statistical significance (NS, not significant; *, p<0.05; **, p<0.01), and Effect Size. In the first rows, different scoring system for MRI inflammation appears: Area analyzed by s-SCAISS, s-SCAISS, Berlin and SPARCC (using only a semi-coronal slide). Activity and functional indexes were lower with significant differences and a large effect size. Correlations of s-SCAISS with Berlin (rho=0.78;p<0.05) and SPARCC (rho=0.96;p<0.001) were good; with clinical disease activity outcomes were poor, except with BASDAS (rho=0.70;p<0.05). The best correlation according improvements appeared comparing reduction of ASDAS with reduction of s-SCAISS (rho=0.57) but this difference was not significant. Although improvements in BASMI was not significant, a good correction was found between improvement in s-SCAISS and BASMI (rho=0.72;p<0.05).

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Table:

<table>
<thead>
<tr>
<th>Area</th>
<th>PRE</th>
<th>POST</th>
<th>Sign</th>
<th>E.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRP</td>
<td>13.1 (9.4)</td>
<td>4.1 (3.2)</td>
<td>**</td>
<td>0.90-Large</td>
</tr>
<tr>
<td>BSF1</td>
<td>6.3 (2.6)</td>
<td>4.1 (3.4)</td>
<td>**</td>
<td>0.69-Medium</td>
</tr>
<tr>
<td>ASDAS</td>
<td>3.6 (10)</td>
<td>2.3 (12)</td>
<td>**</td>
<td>1.15-Large</td>
</tr>
<tr>
<td>BASDAS</td>
<td>3.7 (11)</td>
<td>2.6 (13)</td>
<td>*</td>
<td>0.96-Large</td>
</tr>
<tr>
<td>BASMI</td>
<td>3.6 (15)</td>
<td>3.3 (13)</td>
<td>NS</td>
<td></td>
</tr>
</tbody>
</table>

Conclusion: Different methods exist for quantifying inflammation in MRI images of SIJ in axSpA patients. According to our preliminary results, all of them had significant improvements in axSpA patients treated with anti-TNF-α. The s-SCAISS index show good responsiveness, with similar features to validated indexes, but with an accuracy assessment of the BME area.

References:

Disclosure of Interests: Cristina Garrido-González: None declared, María del Carmen Castro Villegas: None declared, MLourdes Ladehesa Pineda: None declared, Juan L. Garrido-Castro: None declared, Rafaela Ortega Castro: None declared, Cristina Gonzalez-Navas: None declared, Pedro Parco-Montejo Speakers bureau: Abbvie, MSD, Novartis, Pfizer., RAQUEL ALMODOVAR Speakers bureau: Abbvie, Celgene, Janssen, Lilly, Novartis, Pfizer. Angel Bueno: None declared, Luis Miguel Molinero: None declared, Eduardo Collantes Estevez Grant/research support from: ROCHE and Pfizer, Speakers bureau: ROCHE, Lilly, Bristol and Celgene.

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Background: Axial Spondyloarthritis (axSpA) is associated with a high degree of functional limitation in daily life activities. However, few studies have evaluated the social and family burden from the patient’s perspective.

Objectives: To describe the impact of axSpA on social and family life since disease onset, and the associated PROs.

Methods: Data from 2,846 unselected patients of the European Map of Axial Spondyloarthritis (EMAS) study through an online survey (2017-2018) across 13 European countries were analysed. The impact of axSpA on social and family life were assessed through four PROs: i) Impact on relationships with the spouse, family, friends, neighbours, and work colleagues since disease onset (5 point Likert scale; 1 “much better” – 5 “much worse”); ii) Frequency of social activities including outings to bars/restaurants, cinema/theatre/museums, practising sports, travel/excursions, and intimate relations since disease onset (5 point Likert scale; 1 “much more” – 5 “much less”); iii) Adaptations made to cope with axSpA since disease onset (yes/no question); iv) The degree of functional limitation in 18 daily activities (3 point Likert scale). Self-reported BASDAI (0-10), spinal stiffness (3-12), functional limitation (5 point Likert scale; 1 “much better” – 5 “much worse”; ii) Frequency activities: 1 much more – 5 much less

Table 1. Pearson’s correlation between social and family life changes and PROs

<table>
<thead>
<tr>
<th>Relationships: 1 much better – 5 much worse</th>
<th>BASDAI</th>
<th>Spinal Stiffness</th>
<th>Functional Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spouse</td>
<td>0.157*</td>
<td>0.130*</td>
<td>0.167*</td>
</tr>
<tr>
<td>Family</td>
<td>0.162*</td>
<td>0.133*</td>
<td>0.138*</td>
</tr>
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<td>Friends</td>
<td>0.211*</td>
<td>0.173*</td>
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<tr>
<td>Neighbours</td>
<td>0.210*</td>
<td>0.165*</td>
<td>0.112*</td>
</tr>
<tr>
<td>Work colleagues</td>
<td>0.229*</td>
<td>0.153*</td>
<td>0.213*</td>
</tr>
<tr>
<td>Frequency activities: 1 much more – 5 much less</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bars / restaurants</td>
<td>0.348*</td>
<td>0.245*</td>
<td>0.314*</td>
</tr>
<tr>
<td>Cinemas / theatres / museums</td>
<td>0.291*</td>
<td>0.243*</td>
<td>0.299*</td>
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<tr>
<td>Do sports</td>
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<td>0.240*</td>
</tr>
<tr>
<td>Travel / excursions</td>
<td>0.308*</td>
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<td>0.307*</td>
</tr>
<tr>
<td>Intimate relations</td>
<td>0.284*</td>
<td>0.254*</td>
<td>0.286*</td>
</tr>
</tbody>
</table>

*p < 0.001

Results: Among 2,846 participants, mean age was 43.9 years, 61.3% were female, 48.1% had a university degree. The greatest impact on relationships with the spouse, family, friends, neighbours, and work colleagues since disease onset (5 point Likert scale; 1 “much better” – 5 “much worse”); ii) Frequency of social activities including outings to bars/restaurants, cinema/theatre/museums, practising sports, travel/excursions, and intimate relations since disease onset (5 point Likert scale; 1 “much more” – 5 “much less”); iii) Adaptations made to cope with axSpA since disease onset (yes/no question); iv) The degree of functional limitation in 18 daily activities (3 point Likert scale). Self-reported BASDAI (0-10), spinal stiffness (3-12), functional limitation (5 point Likert scale; 1 “much better” – 5 “much worse”; ii) Frequency activities: 1 much more – 5 much less

Conclusion: For most participants the onset of axSpA marked the worsening of personal relationships in different areas, as well as the reduction of social, leisure, and entertainment activities.

Acknowledgments: Funded by Novartis Pharma AG

Disclosure of Interests: Marco Garrido-Cumbra: None declared, Victoria Navarro-Compán Consultant of: Abbvie, Lilly, Novartis, Pfizer, UCB, Speakers bureau: Abbvie, MSD, Lilly, Novartis, Pfizer, UCB, Christine Bundy Grant/ research support from: Has received unrelated honoraria from Abbvie, Celgene, Janssen, Lilly, Novartis, and Pfizer., Raj Mahapatra: None declared, Souzi Makri: None declared, Sergio Sanz-Gómez: None declared, Laura Christen: None declared, Carlos Jesus Delgado-Dominguez: None declared, 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

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Figure 2. Reported level of functional limitation in daily live activities

Figure 1. Reported social and family live changes since disease onset

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