present/absent by global assessment was analysed using kappa. Reliability of detailed scoring was analysed by intraclass correlation coefficient (ICC).

Results: Reliability of detection of active and structural lesions was comparable and somewhat better when with DICOM images were evaluated (table 1). The most frequently detected active lesion, subchondral inflammation, was detected to a comparable degree of reliability as the most frequently detected structural lesion, erosion. Fat metaplasia in the joint space (backfill) and ankylosis were also reliably detected despite low frequency of occurrence in this cohort. ICC for detailed scores were BME-0.84, Erosion-0.55, Fatty lesion (any)-0.61, Fatty lesion (>1 cm depth)-0.55, Sclerosis-0.73, Fat metaplasia in joint space-0.36, Ankylosis-0.97, Bone bud-0.07.

Abstract FR0169 – Table 1. Kappa values for detection of MRI lesions in the SIJ of patients in the ASAS-CC

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (Range) of cases</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active lesions typical of edema</td>
<td>0.70 (0.59-0.82)</td>
<td>175</td>
</tr>
<tr>
<td>Active lesions typical of edema (confid 3x1-4 scale)</td>
<td>0.70 (0.59-0.82)</td>
<td>175</td>
</tr>
<tr>
<td>ASAS positive MRI</td>
<td>0.70 (0.59-0.82)</td>
<td>175</td>
</tr>
<tr>
<td>ASAS positive MRI (confid 3x1-4 scale)</td>
<td>0.70 (0.59-0.82)</td>
<td>175</td>
</tr>
<tr>
<td>Structural lesions typical of edema</td>
<td>0.70 (0.59-0.82)</td>
<td>175</td>
</tr>
<tr>
<td>Structural lesions typical of edema (confid 3x1-4 scale)</td>
<td>0.70 (0.59-0.82)</td>
<td>175</td>
</tr>
<tr>
<td>Subchondral inflammation</td>
<td>0.65 (0.47-0.73)</td>
<td>175</td>
</tr>
<tr>
<td>Subchondral inflammation (confid 3x1-4 scale)</td>
<td>0.65 (0.47-0.73)</td>
<td>175</td>
</tr>
<tr>
<td>Inflammation in Erosion cavity</td>
<td>0.35 (0.13-0.62)</td>
<td>175</td>
</tr>
<tr>
<td>Capsules</td>
<td>0.30 (0.19-0.59)</td>
<td>175</td>
</tr>
<tr>
<td>Joint fluid</td>
<td>0.30 (0.19-0.59)</td>
<td>175</td>
</tr>
<tr>
<td>Fat metaplasia in joint space &amp; bone backfill</td>
<td>0.30 (0.19-0.59)</td>
<td>175</td>
</tr>
<tr>
<td>Sclerosis</td>
<td>0.30 (0.19-0.59)</td>
<td>175</td>
</tr>
<tr>
<td>Erosion</td>
<td>0.30 (0.19-0.59)</td>
<td>175</td>
</tr>
<tr>
<td>Fatty lesion (any)</td>
<td>0.30 (0.19-0.59)</td>
<td>175</td>
</tr>
<tr>
<td>Erosion</td>
<td>0.30 (0.19-0.59)</td>
<td>175</td>
</tr>
<tr>
<td>Fatty lesion &gt;1 cm</td>
<td>0.30 (0.19-0.59)</td>
<td>175</td>
</tr>
<tr>
<td>Fat metaplasia in joint space</td>
<td>0.30 (0.19-0.59)</td>
<td>175</td>
</tr>
<tr>
<td>Bone bud</td>
<td>0.30 (0.19-0.59)</td>
<td>175</td>
</tr>
<tr>
<td>Ankylosis</td>
<td>0.30 (0.19-0.59)</td>
<td>175</td>
</tr>
</tbody>
</table>

Based on all images (n=278); **Based on DICOM images (n=175).

Conclusions: The reliability of the ASAS_MRI_def was substantial for the most frequently detected lesions.

Disclosure of Interest: None declared


FR0170

CONSENSUS DEFINITIONS FOR MRI LESIONS IN THE SACROILIAC JOINTS OF PATIENTS WITH AXIAL SPONDYLOARTHRITIS: FIRST ANALYSIS FROM THE ASSESSMENTS IN SPONDYLOARTHITIS INTERNATIONAL SOCIETY (ASAS) CLASSIFICATION COHORT


1Medicine, University of Alberta, Edmonton, Canada; 2Rheumatology, Gentofte Hospital, Copenhagen, Denmark; 3Rheumatology, Rheumazentrum Ruhpudheim, Herne, Germany; 4Rheumatology, University College London, London, UK; 5Rheumatology, Hôpital Brabois, Nancy, France; 6Rheumatology, Hôpital Cochin, Paris, France; 7Rheumatology, Leiden University Medical Centre, Leiden, Netherlands; 8Rheumatology, Hôpital Cochin, Paris, France; 9Radiology, University of Alberta, Edmonton, Canada

Abstract FR0170 – Table 1. Frequencies of active MRI lesions in the SIJ in the ASAS-CC

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (Range) of cases</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active lesions typical of edema</td>
<td>31.5 (14.5-36.3)</td>
<td>79 (20.9)</td>
</tr>
<tr>
<td>Active lesions typical of edema and level of confidence 3x3 (scale of 1-4)</td>
<td>22.7 (18.0-27.3)</td>
<td>58 (19.0)</td>
</tr>
<tr>
<td>Active lesions typical of edema and meets ASAS definition for positive MRI</td>
<td>30.0 (22.6-37.4)</td>
<td>71 (25.5)</td>
</tr>
<tr>
<td>ASAS positive MRI</td>
<td>23.1 (18.3-30.2)</td>
<td>58 (20.9)</td>
</tr>
<tr>
<td>Subchondral inflammation</td>
<td>43.5 (38.5-51.1)</td>
<td>110 (39.8)</td>
</tr>
<tr>
<td>Site of erosion cavity inflammation</td>
<td>4.9 (1.8-12.6)</td>
<td>10 (3.6)</td>
</tr>
<tr>
<td>Capsules</td>
<td>4.0 (1.8-7.2)</td>
<td>6 (2.2)</td>
</tr>
<tr>
<td>Bone bud</td>
<td>14.1 (10.8-20.5)</td>
<td>11 (4.0)</td>
</tr>
<tr>
<td>Enthesitis</td>
<td>10 (8.0-12.2)</td>
<td>16 (5.8)</td>
</tr>
</tbody>
</table>

(*Individual data from 6 readers; majority reader (-4) data).

Conclusions: In this first central reader analysis of MRI images from the ASAS-CC we demonstrated similar frequencies of active and structural lesions typical of axSpA, erosion as a common lesion, some degree of false positive subchondral inflammation, and a lower frequency of active lesions typical of axSpA than noted by local site readers.

REFERENCE:

Disclosure of Interest: None declared


FR0171

WHICH IMAGING OUTCOMES FOR AXSPA ARE MOST SENSITIVE TO CHANGE? A 5-YEAR ANALYSIS OF THE DESIR COHORT

A. Sepriano1, S. Ramiro1, D. van der Heijde1, M. Dougdas2, P. Claudepierre3, A. Feydy4, M. Reijsner5, D. Louillle6, R. Landewé7.

1Rheumatology, Hôpital Cochin, Paris, France; 2Rheumatology, Leiden University Medical Centre, Leiden, Netherlands; 3Rheumatology, Hôpital Cochin, Paris, France; 4Radiology, Hôpital Henri-Mondor; 5Radiology, Hôpital Cochin, Paris, France; 6Radiology, Leiden University Medical Centre, Leiden, Netherlands; 7Rheumatology, Hôpital Brabois, Nancy, France, France; 8Rheumatology, Amsterdam Rheumatology and Clinical Immunology Center (ARC), Amsterdam, Netherlands

Background: Several imaging outcomes have become available to assess inflammation and structural damage over time in patients with axial spondyloarthritis (axSpA). However, no formal comparison of their sensitivity to change has been made in the early phases of the disease.

Objectives: We aimed to compare the sensitivity to change of different MRI and radiographic scoring methods in patients with early axSpA.

Methods: Patients from the DESIR cohort fulfilling the ASAS axSpA criteria were included. Radiographs and MRI of the sacroiliac joints and spine were obtained at baseline, 2 years, 5 years. Each film was scored by 2 or 3 readers in 3 reading-waves (wave 1: baseline; wave 2: baseline, 1 year; wave 3: baseline, 5 years). Outcomes measuring inflammation and structural damage both on MRI and radiographs in the spine and SIJ were assessed (table 1). The analysis of change captured over time was performed using generalised estimating equations (GEE) longitudinal models separately for each outcome, taking into account data from all readers and waves (‘integrated analysis’). To allow

Abstract FR0171 – Table 1. Frequencies of active MRI lesions in the SIJ in the ASAS-CC

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (Range) of cases</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural lesions typical of edema</td>
<td>21.5 (13.5-29.7)</td>
<td>68 (20.6)</td>
</tr>
<tr>
<td>Subchondral erosions</td>
<td>24.2 (10.1-39.1)</td>
<td>36 (11.5)</td>
</tr>
<tr>
<td>Erosion</td>
<td>27.9 (21.3-32.0)</td>
<td>60 (21.2)</td>
</tr>
<tr>
<td>Fatty lesions (any)</td>
<td>33.5 (18.2-29.3)</td>
<td>47 (15.8)</td>
</tr>
<tr>
<td>Fatty lesions (&gt;1 cm)</td>
<td>11.7 (6.0-15.0)</td>
<td>22 (7.2)</td>
</tr>
<tr>
<td>Bone bud</td>
<td>14.1 (9.4-18.8)</td>
<td>14 (4.6)</td>
</tr>
<tr>
<td>Fat metaplasia in joint space</td>
<td>8.1 (4.2-10.5)</td>
<td>11 (4.6)</td>
</tr>
<tr>
<td>Enthesitis</td>
<td>1.0 (0.0-3.0)</td>
<td>5 (1.6)</td>
</tr>
</tbody>
</table>

(*6 readers; majority reader (-4) data).

Conclusions: In this first central reader analysis of MRI images from the ASAS-CC we demonstrate similar frequencies of active and structural lesions typical of axSpA, erosion as a common lesion, some degree of false positive subchondral inflammation, and a lower frequency of active lesions typical of axSpA than noted by local site readers.

Disclosure of Interest: None declared
