ENHANCED PERFORMANCE OF THE ASAS CLASSIFICATION CRITERIA BY DELETION OF NON-DISCRIMINATORY CLINICAL ITEMS: DATA FROM THE SCREENING IN AXIAL SPONDYLOARTHRITIS IN PSORIASIS, IRRITIS, AND COLITIS COHORT

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Results: A total of 246 patients were recruited, 47.6% being diagnosed with axSpA (61.5% male, age 33.7 years, symptom duration 7.6 years, B27 positive 52.1%). The following clinical SpA features were non-discriminatory in comparisons of patients diagnosed with and without axSpA in a prospective cohort of patients with undiagnosed back pain could enhance the performance of the criteria.

Methods: We used data from the prospective multicenter Screening for Axial Spondyloarthritis in Psoriasis, Irritis, and Colitis (SASPIC) Study. Consecutive patients ≤45 years of age with ≥3 months undiagnosed back pain with any one of psoriasis, AUA, or colitis undergo routine diagnostic evaluation by a rheumatologist for axial SpA, including imaging assessed by central readers. Unvariable and multivariable logistic regression analysis was performed to determine which clinical SpA features were/were not discriminatory for the final diagnosis of axSpA. We then compared the sensitivity and specificity of the ASAS criteria with and without these features.

Results: A total of 246 patients were recruited, 47.6% being diagnosed with axSpA (61.5% male, age 33.7 years, symptom duration 7.6 years, B27 positive 52.1%). The following clinical SpA features were non-discriminatory between axSpA/not axSpA: NSAID response, family history of SpA, heel enthesitis, peripheral arthritis, dactylitis. Specificity of the clinical arm and the overall criteria increased from 82.2% to 66.8% without impacting sensitivity. This effect was particularly noteworthy in patients with lower degree of symptomatology (back pain severity <5/10, specificity increases from 76.7% to 90.7%), short symptom duration (<5 years, specificity increases from 78% to 84.7%), and in females (specificity increases from 80.6% to 86.1%).

Conclusion: In a prospective cohort with a high pre-test probability of axSpA certain clinical SpA features were not helpful in discriminating a diagnosis of SpA from not-SpA. Deletion of these features from the list of SpA features used in the ASAS classification criteria enhanced the performance of the criteria, especially in female patients and those with early disease.

References:

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Impact of Replacement of Radiographic Sacroilitis by MRI Structural Lesions on SpA Classification in cases with all clinical, radiographic, and central and local MRI inflammation data available (n=217)

<table>
<thead>
<tr>
<th>MRI assessment used</th>
<th>SpA Classification=Yes N(%)</th>
<th>SpA Classification=No N(%)</th>
<th>Imaging Arm SpA Classification=Yes N(%)</th>
<th>Imaging Arm SpA Classification=No N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiographic Sacroilitis + Majority Central Reader MRI Inflammation Positive</td>
<td>119 (54.8%)</td>
<td>97 (44.7%)</td>
<td>83 (38.2%)</td>
<td>134 (61.8%)</td>
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<tr>
<td>Replace Radiographic Sacroilitis with ≥2 Positive</td>
<td>125 (57.6%)</td>
<td>92 (42.4%)</td>
<td>100 (46.1%)</td>
<td>117 (53.9%)</td>
</tr>
<tr>
<td>Central Reader MRI Structural Positive</td>
<td>Replace Radiographic Sacroilitis with ≥2 Positive</td>
<td>118 (54.4%)</td>
<td>99 (45.6%)</td>
<td>85 (39.2%)</td>
</tr>
</tbody>
</table>

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References: