Figure 1 Comorbidities defined by Elixhauser coding algorithms* in patients with axial spondyloarthritis (N=1,776) and matched controls (N=1,776).

*excluding rheumatic diseases. AxSpA, axial spondyloarthritis; COPD, chronic pulmonary disease.

Conclusion: Comorbid conditions are common in axSpA patients and are independently associated with higher disease activity and higher level of functional impairment. Higher disease activity and a higher level of functional disability might be indicators of a severe disease resulting in the development of comorbid conditions.

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SAT0348 HOW FREQUENT IS NEUROPATHIC PAIN COMPONENT IN PATIENTS WITH SPONDYLOARTHRITIS?

Leila Rouached, Saoussen Miladi, Alia Fazaa, Lilia Nacef, Kmar Ouenniche, Leila Souabni, Salma Kassab, Selma Chekili, Zakraoui Leith, Kawther Ben Abdelghani, Ahmed Laatar. *mongi slim hospital, rheumatology, tunis, Tunisia*

Background: Criteria to define inflammatory back pain in Spondyloarthritis (SA) are multiple. Although neuropathic pain component was known to be part of disease symptoms, it has been rarely assessed.

Objectives: The aim of this study was to determine the prevalence of the neuropathic pain component in SA patients and secondarily, to detect correlation with the disease duration, activity scores and functional impairment.

Methods: A cross-sectional study including patients with radiographic axial SA defined by ASAS criteria was conducted. Patients were questioned about their neuropathic pain using painDETECT questionnaire and Douleur Neuropathique en 4 Questions (DN4) interview. Further information about disease characteristics, activity (BASDAI, ASDAS_{CRP}) and functional (BASFI) scores were assessed the same day.

Statistical analysis, was performed by Chi²-test for qualitative variables and Student-test for quantitative variables. A p value ≤0.05 was considered significant.

Results: Forty patients were included. The average age was about 41 years old (±12.9) and the sex ratio was 12.3 (H/F). The mean disease duration was 10.7±6.9 years. Most of patients suffered from back pain and the visual analogic scale pain scale was about 3.78±2.5. The mean BASDAI score was 2.75±2.3 and the mean ASDAS_{CRP} was 2.24±1.07. The average BASFI score was 2.57±2.5. Neuropathic pain component was noted only in 7.5% of patients by DN4 interview (≥4/10) and in 10% of patients by pain DETECT questionnaire.

As expected, patients with DN4≥4 were correlated to the visual analogic scale pain (p=0.04) and female gender (p=0.07). But no relation was found with the type of SA or the disease activity or the functional scores.

Conclusion: Neuropathic pain component was noted only in 10% of SA in our work. Positive correlation was found with visual analogic scale pain and female gender. Larger studies are needed to assess this type of pain since therapeutic strategy may be affected.

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SAT0349 HIGHER DISEASE ACTIVITY IS ASSOCIATED WITH MORE SPINAL RADIOGRAPHIC PROGRESSION IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS

Alexandre Sepriano¹, Sofia Ramiro¹, Stephanie Wichuk², Praveena Chiowchanwisawakit³, Terrie Maccosham², Joel Paschke⁴, Désirée van der Heijde¹, Robert B.M. Landewe⁵, Walter P. Maksymowych^{2,4}. ¹LUMC, Leiden, Netherlands; ²University of Alberta, Edmonton, Canada; ³Mahidol University, Bangkok, Thailand; ⁴CARE Arthritis, Edmonton, Canada; ⁵ARC, Amsterdam, Netherlands

Background: The association between disease activity and spinal radiographic progression in radiographic axial spondyloarthritis (r-axSpA) has been previously shown in a cohort of patients (pts) not being treated with TNF inhibitors (TNFi).¹

Objectives: To test the possible association between disease activity and spinal radiographic progression in r-axSpA in a real-life cohort, also including patients treated with TNFi.

Methods: Pts with axial spondyloarthritis (axSpA) fulfilling the modified New York criteria (mNY) were included in this prospective, observational cohort (ALBERTA FORCAST). Clinical and imaging data were collected at baseline and every 2 years up to 10 years of follow-up. Radiographs of the spine were independently scored by 2 central readers and one adjudicator (if disagreement), with known chronological order but blinded to clinical data, using the modified Stoke Ankylosing Spondylitis Spine Score (mSASSS). To be included, pts had to have ≥ one 2-year interval with data on mSASSS from ≥1 reader available as well as complete data on ASDAS and TNFi exposure at the start of the interval. The association between ASDAS at the start of the interval (t) and mSASSS 2 years later (t+1) was tested in two types of longitudinal GEE models: i. multilevel (2 readers) model with the individual reader scores as outcome (2-level models); ii. Using as outcome averaged scores between readers (1-level models). Both type of models were adjusted for mSASSS at t (autoregression) and for a set of potential confounders defined a priori on clinical grounds (Figure).

Results: In total, 314 pts (442 intervals) were included [74% males, mean symptom duration 17.8 (SD 11.7) years, 83% HLA-B27 positive and 7% previously treated with ≥1 TNFi]. At baseline the mean ASDAS was 2.7 (1.3) and the mean mSASSS 13.8 (18.9). During follow-up 213 (68%) pts received treatment with TNFi in ≥1 visit. Overall, the average 2-year progression was 1.33 (2.68) mSASSS-units per 2-year interval. In the 2-level multivariable model, 1 ASDAS-unit increase at t was associated with an increase of 0.25 mSASSS-units at t+1 [β (95% CI): 0.25 (95%CI 0.10; 0.41)] (Figure). Results were similar using the averaged mSASSS as the outcome [β (95% CI): 0.25 (0.08; 0.43)].

Conclusion: These data add to previous evidence by showing that a higher ASDAS is associated with higher spinal radiographic progression in pts with r-axSpA independent of prior treatment with TNFi.

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Figure. Longitudinal effect of ASDAS at the start of the interval on mSASSS 2 years later in a multilevel, multivariable linear GEE model with autoregression (N=313; model also adjusted for mSASSS at t-1 ('autoregressor'), Number of TNFi before baseline (continuous) and TNFi at t-1 (yes vs no)).

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