is used for hypothesis testing and estimating the tangible impact between exposure and results.

Results: The study indicated that AS increased the genetic susceptibility to cardiovascular stroke (IVW: OR=1.05, 95% CI: 1.01-1.10, p = 0.03), heart failure (HF) (IVW: OR=1.05, 95% CI: 1.00-1.01, P=0.0004) and atrial fibrillation (AF) (IVW: OR=1.01, 95% CI: 1.00-1.01, P=0.007). Small vessel stroke (SVS) was positively associated with an increased risk of AS (IVW: OR=1.20, 95% CI:0.77-1.41, P=0.022).

Conclusion: AS may be a risk factor for CVD such as cardiogenic stroke, HF, and AF. At the same time, for patients of SVS, the risk of developing AS was 1.20 times. Inflammation may be one of the main pathways linking this causality.

References:


Figure 1: Odd ratio (OR) of Ankylosing spondylitis (AS) and cardiovascular disease (CVD).

(A) OR of the associations of AS with the risk of CVD; (B) OR of the associations of CVD with the risk of AS. CI: confidence interval; SNP: single nucleotide polymorphism; IVW: the inverse variance weighted.

Acknowledgements: NIL.
Disclosure of Interests: None Declared.
DOI: 10.1136/annrheumdis-2023-eular.3525

AB0989
ARE OSTEOPOROSIS AND FRACTURES NEGLECTED ISSUES IN AXIAL SPONDYLOARTHRITIS? DATA FROM A CROSS-SECTIONAL MONOCENTRIC STUDY

Keywords: Spondyloarthritis, Comorbidities, Osteoporosis

C. Crotti1, F. Orsini1,2, R. Di Taranto1,2, M. Ferro1,2, A. Amati1,2, M. Biggioggero1, M. Varenna1,2, E. G. Favalli1,2, R. Caporali1,2. ASST G. Pini-CTO, Department of Rheumatology and Medical Sciences, Milan, Italy; Università degli Studi di Milano, Department of Clinical Sciences and Community Health, Milan, Italy; ASST G. Pini-CTO, Department of Rheumatology and Medical Sciences, Bone Disease Unit, Milan, Italy

Background: Prevalence of osteoporosis (OP) and fractures (Fx) in spondyloarthritids (SpA) is frequently overlooked[1]. Axial (ax) involvement, particularly in ankylosing spondylitis (AS), is associated with a seeming increased lumbar spine bone mineral density (BMD) while vertebral fractures are present in up to 43% of patients with AS. Bone densitometry is considered the gold standard for osteoporosis diagnosis and fracture risk assessment.

Objectives: To investigate predictors of OP and prevalence of Fx in a population of axSpA patients.

Methods: Data were cross-sectionally extracted from a monocentric registry including SpA patients with axial involvement [AS, ax-Psoriatic Arthritis (ax-PsA)], non-radiographic axSpA (nr-axSpA), IBD associated-SpA at their last evaluation in a tertiary rheumatology center between August and December 2022. Comparisons were performed by T test and chi-square test; logistic regression was used to analyze the predictors of OP screening assessed by dual-energy x-ray absorptiometry (DXA) and other collected variables.

Results: The overall population included 385 patients (35.6% female; mean age±SD 48.5±12.7 yrs; 42.9% AS, 33% nr-axSpA, 20.5% ax-PsA, 3.6% IBD-SpA; 43.9% HLAB27 positive; 42.3% postmenopausal females; 78% patients with previous diagnosis of OP). Almost 10% of the entire population experienced Fx (n=38): 16 vertebral Fx, 2 femoral Fx, and 24 non-vertebral/non femoral Fx. The presence of previous fragility Fx was significantly associated with menopause (39% vs 12.4%, p<0.001), older age (56.6±10.11 vs 47.6±12.65, p<0.001), higher ASDAS-CRP (median 1.2 (1-2.6) vs 0.9 (0-1.9), p<0.001) and higher HLAB27 positivity (41.1% vs 23.7%, p=0.03), and previous OP diagnosis (50% vs 3.1%, p<0.001). DXA was performed only in 11.7% of the population. DXA was mainly performed in males (64.5% vs 31.8%, p<0.001), post-menopausal women (57.8% vs 9.4%, p<0.001), patients with previous diagnosis of disthyroidism (11% vs 4.7%, p=0.08), OP (53.4% vs 18%, p<0.001), patients with previous Fx (46.7% vs 5%, p<0.001), older age (56.6±10.11 vs 47.6±12.65, p<0.001), patients with previous OP diagnosis (50% vs 3.1%, p<0.001), both vertebral Fx (26.7% vs 12%, p=0.001) and non-vertebral/non femoral Fx (24.5% vs 3.9%, p<0.001). DXA was significantly more frequently performed in patients supplemented with vitamin D (86.7% vs 29.4%, p<0.001), calcium (53.4% vs 4.1%, p<0.001), and receiving bisphosphonate therapy (26.7% vs 18%, p<0.001) or on bone loss inducing drugs (44.4% vs 21.3%, p<0.001). DXA was significantly less frequently evaluated in current smokers (1.5% vs 4.6%, p<0.04) and ax-PsA subtype (8.9% vs 22%, p<0.04). Factors associated with OP screening by DXA were menopause [OR 17.8, 95% CI 2.3-135, p<0.005], and bone loss inducing drugs (OR 3.2, 95% CI 1.12-9.16, p=0.030). Predictor of Fx was the presence of elevated disease burden expressed as ASDASCRP (OR 1.9, 95% CI 1.2-3.2, p=0.012).

Conclusion: Our data confirm that OP is an underestimated comorbidity in axSpA patients, particularly males or younger patients. Fragility Fx is related with disease burden, confirming that inflammation mostly triggers bone loss. Not all risk factors for OP are correctly assessed, such as active smoking. We should aim to better evaluate OP as a SpA comorbidity to early detect patients at high risk of fragility Fx to treat them properly.

References:

Acknowledgements: NIL.
Disclosure of Interests: None Declared.
DOI: 10.1136/annrheumdis-2023-eular.3905

AB0990
OBSTRUCTIVE SLEEP APNEA IS INCREASED IN PATIENTS WITH SPONDYLOARTHRITIS COMPARED TO HEALTHY CONTROLS

Keywords: Spondyloarthritis, Cardiovascular disease, Epidemiology

O. Kalish1, O. Elkalay2, R. Meidan2, T. Eviatar2, A. Zeltser2, O. Kalish1,2, D. Parad2,3, T. Eviatar2, R. Tauman4,5, D. Levartovsky2,6, O. Elkalay1,2,1. Tel Aviv University, Medicine, Tel Aviv-Yafo, Israel;2Tel Aviv Sourasky Institute, Bat Yam, Israel;3Tel Aviv Sourasky Medical Center, Tel Aviv, Israel;4University of California, San Francisco, San Francisco, United States;5University of California, San Francisco, San Francisco, United States;6University of California, San Francisco, San Francisco, United States

Abstract: The prevalence of Obstructive Sleep Apnea (OSA) is higher in patients with SpA compared to the general population. The aim of this study was to compare the prevalence of OSA between patients with SpA and healthy controls.

Methods: The study included 300 patients with axial SpA (axSpA) and 300 healthy controls. All patients underwent a comprehensive sleep assessment including a full night polysomnography (PSG). The primary outcome was the prevalence of OSA, defined as an apnea-hypopnea index (AHI) ≥ 5. Secondary outcomes included the severity of OSA, as measured by the AHI, and the presence of comorbidities.

Results: The prevalence of OSA was significantly higher in patients with axSpA compared to healthy controls (40% vs 25%, p<0.001). The median AHI was also higher in patients with axSpA compared to healthy controls (11 vs 6, p<0.001). The prevalence of severe OSA (AHI ≥ 30) was also higher in patients with axSpA compared to healthy controls (10% vs 4%, p<0.01). The presence of comorbidities, such as hypertension and diabetes, was also higher in patients with axSpA compared to healthy controls (45% vs 30%, p<0.01).

Conclusion: The prevalence of OSA is significantly higher in patients with axSpA compared to healthy controls. This finding highlights the importance of screening for OSA in patients with axSpA and the need for further studies to explore the underlying mechanisms.

Disclosure of Interests: None Declared.
DOI: 10.1136/annrheumdis-2023-eular.3910