expansion in AS group (p<0.001). PFTs were found to be restrictive in 14 AS patients (83.6%) with mean of FVC (70.3±9%), FEV1 (55.2±15.9%), FEV1/FVC (80.±52) and these restrictive PFTs were associated with SCJ synovitis (p=0.03); SCJ PD activity (p=0.03); SCJ erosions (0.05) and highly associated with MSJ anklyosing (p<0.001). All AS patients (100%) with ankylosed MSJ by US had limited chest expansion and restrictive PFTs.

In AS group, ultrasonographic changes and restrictive PFTs were found to be higher with older age, male sex, smoking, longer disease duration and high BASDAI and BASFI.

Conclusions: Our study demonstrated that ultrasound detected subclinical changes in ACJ joints is associated with restrictive pattern of PFTs in AS patients.

References:

Disclosure of Interest: None declared

THU0256

LOW BONE MINERAL DENSITY IS COMMON IN AXIAL SPONDYLOARTHRITIS

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Background: Osteoporosis is a known consequence of inflammatory arthritis (IA). In the general population and IA such as rheumatoid arthritis, the impact of osteoporosis is well outlined. However, it is often ignored in axial spondyloarthropathy (axSpA), a form of IA centred on sacroiliac joints and the spine, axSpA predominantly affects men, in whom osteoporosis is often not considered. As a result, osteoporosis prevalence figures are unclear, with wide variation in the literature. Accurate epidemiology regarding bone mineral density (BMD) in axSpA is crucial to begin understanding the impact of low BMD in this cohort.

Objectives: 1. Investigate the prevalence of low BMD in a well-characterised axSpA cohort
2. Explore relationships (demographic, disease-related, laboratory) between BMD and axSpA

Methods: A detailed assessment was performed on axSpA patients, including demographics, clinical characteristics and laboratory investigations. Disease severity was assessed with tools validated in axSpA: ASDAS-CRP and BASDAI (disease activity), BASMI (spinal mobility) and BASFI (function). BMD was assessed using DXA of the spine, hip and radius. Lateral vertebral assessment (LVA) was also performed. The WHO criteria were used to classify low BMD.

Results: One hundred and four patients with axSpA were consecutively recruited: 77.9% (n=81) male, 98.1% (n=102) Caucasian, mean (SD) age 51±16 years, disease duration 26±13 years. The mean (SD) ASDAS-CRP was 2.3 (1), BASDAI was 3.9 (2.2), BASMI was 4.3 (1.9) and BASFI was 3.8 (2.5), reflecting mild to moderate disease burden. A history of fracture was present in 42.3% (n=44) of the cohort, with only 3 fragility fractures reported. Of the cohort, 42.3% (n=44) had osteopenia and 16.3% (n=17) had osteoporosis. Low BMD was most prevalent at the spine, with 44% of the cohort affected, followed by the femoral neck (30.1%, n=22). Low BMD at the radius was uncommon (<10% of the cohort). Only 6.4% of the cohort had a prior diagnosis of osteoporosis and only 39.4% had a previous DXA.

Three vertebral fractures were detected on LVA – all patients were unaware of these fractures prior to the study.

Female gender, higher BASFI, lower BMI and lower urine levels were significantly associated with bone loss at both the spine and the hip. ASDAS-CRP and BASDAI had no impact on low BMD. Additionally, longer disease duration was associated with spine BMD loss. Non-obese patients were more likely to have low BMD at any site than obese patients (62.3% v 40%, OR 2.5, p<0.04). The use of biologics didn’t influence BMD.

Conclusions: Patients with AS had significantly lower HRQoL compared with controls. Women with AS scored lower in some domains compared to men and this was affected more compared to MCS in both sexes. Both demographic and disease related factors were associated with HRQoL, partly overlapping for PCS and MCS. By modifying factors, such as ASDAS and fatigue, HRQoL may potentially be improved. The development of SF-36 over 5 years will be investigated.

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