

[2012] [FRI0274] DECREASE IN LUMBAR SPINE BONE MINERAL DENSITY IN PATIENTS WITH EARLY AXIAL SPONDYLOARTHRITIS IS HIGHLY ASSOCIATED WITH SPINAL INFLAMMATION ON MRI: RESULTS FROM THE DESIR COHORT

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Objectives: to assess bone mineral density (BMD) at lumbar spine and hip in a large cohort of patients with early inflammatory back pain suggestive of axial SpA, and to assess systemic and spinal inflammation (according to Magnetic Resonance Imaging MRI) as determinants of low BMD.

Methods: 708 patients with inflammatory back pain (IBP) suggestive of axial SpA defined by Calin or Berlin criteria were recruited in 25 centers. In 12 centers, lumbar spine, hip BMD and body composition (lean and fat masses) measurements were performed in 332 patients (52.4% women are the basis of this study). Low BMD was defined by $T \leq -2$ at either spine or hip. Clinical, biological, demographic and imaging parameters were compared between low BMD and normal BMD groups. Significant parameters in univariate analyses between low BMD and normal BMD groups were retested in multivariate models to assess determinants of low BMD.

Results: patients (mean age 33.8 years) had a short duration of axial symptoms (mean 1.6 years); 237 (71.4%) fulfilled the ASAS criteria for axial SpA and HLA-B27 was present in 62.1%. A low BMD was present in 42 (12.7%) patients. Multivariate logistic regression showed that parameters significantly associated with low BMD (any site) at baseline were the presence of inflammatory lesions on spine MRI (OR=3.59, $p=0.018$), and Erythrocyte Sedimentation Rate (ESR) (OR=1.04, $p=0.003$); female gender was a protective factor (OR=0.03, $p=0.001$).

Conclusions: this study conducted in a large cohort of young adults with early IBP suggestive of SpA shows that 13% of patients have a low BMD and that the main determinant of this low BMD is spinal inflammation.

Disclosure of Interest: None Declared

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Spondyloarthritis Clinical aspects (other than treatment)

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