Frequency of MRI changes suggestive of axial spondyloarthritis in the axial skeleton in a large population-based cohort of individuals aged <45 years

I read with great interest the recent report by Baraliakos *et al* published in the Annals of Rheumatic Disease, about a general population cohort study of healthy volunteers that examined the presence of bone marrow oedema and fatty lesions on MRI of the spine and sacroiliac joints.[1] Over the past decade, imaging techniques such as the MRI have revolutionised the application of radiographic findings in the early diagnosis of axial spondyloarthritis (axSpA).[2]

In this study, the authors elegantly identified an increased frequency of fatty lesions as well as bone marrow oedema in the vertebral corners of the spine, particularly in the lower part of the thoracic spine. I agree with the authors' comment that the vertebral MRI lesions found in the healthy volunteers could be induced by mechanical load or early osteoarthritis; however, given the distribution and the characteristics of the lesions in some patients, these findings could be reflective of diffuse idiopathic skeletal hyperostosis (DISH).

DISH is a common skeletal condition of unknown aetiology characterised by calcification of spinal ligaments and enthesis, and radiographic evidence of flowing ossification along with the vertebral bodies, most commonly in the thoracic spine.[3] From an epidemiologic perspective, DISH has an incidence rate of 4%–7% and could be associated with symptoms of inflammatory back pain and stiffness among patients, mimicking axSpA.[4 5]

In the current study, the authors pointed out that older patients had increased frequency of the thoracic lesions on MRI, a characteristic radiographic feature of DISH, although the prevalence of the disease increases with age, DISH may affect patients under the age 45.[6 7] Moreover, a recent study that evaluated the spine of 53 DISH patients with the use of MRI, demonstrated bone marrow oedema and fat deposition in at least one vertebral corner, in 76% and 67% of patients, respectively, similar results seen in axSpA.[8]

In conclusion, we believe caution should be taken regarding the interpretation of the MRI of the spine findings in order to avoid an erroneous diagnosis of axSpa, and consequently, the use of unnecessary, expensive and potentially harmful treatments. Future studies are warranted to elucidate the long-term progression of the inflammatory spinal lesions in healthy adults and to provide us with a better understanding of the natural history of conditions such as DISH.

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