Images in rheumatology

Tomosynthesis for early diagnosis of sacro-iliitis

Alexis Lacout a,∗, Mostafa El Hajjam b, Pierre Yves Marcy c

a Centre d’imagerie médicale, 47, boulevard du Pont-Rouge, 15000 Aurillac, France
b Pôle d’imagerie médicale, clinique Saint-Dominique, 61100 Flers, France
c Service imagerie médicale, polyclinique Les Fleurs, 332, avenue Frederic-Mistral, 83190 Ollioules, France

Tomosynthesis is a new medical imaging means as a numerical revival of “conventional” tomography that became obsolete a long time ago. The radiation dose exposure is low and this technique improves diagnosis capability of conventional X ray [1]. The extensive number of acquisition slices prevents from superimposition of anatomical structures, thus improving detection of tiny lesions. Tomosynthesis helps to diagnose bone changes (erosions, bone sclerosis and joint ankylosis) (Fig. 1) while MRI examination detects early inflammatory changes (bone edema) that will make up the correct diagnosis of sacro-iliitis. Detection of such bony lesions, often overlooked by using conventional X ray, may allow spondylarthritis diagnosis. The other signs (as regards to the Amor classification) thus should be more precisely sought. MRI of the sacro-iliac joint should subsequently be performed in order to depict sub-chondral edema according to the ASAS criteria [2]. Tomosynthesis has a higher sensitivity of early bone modifications than conventional X ray leading to early stage formal spondylarthritis diagnosis on MRI, thus improving patients long term prognosis.

Disclosure of interest

The authors declare that they have no conflicts of interest concerning this article.

References