Vertebral involvement detected by tomosynthesis in SAPHO syndrome

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The spine, as well as the sternoclavicular and sternocostal joints, sternum, and clavicles, is frequently affected in SAPHO syndrome. The spinal involvement of SAPHO syndrome, represented by a curvilinear or semicircular pattern in contiguous vertebral body segments, is morphologically unique and may be differentiated from that of other spine disorders [1]. However, plain radiographs are usually unsatisfactory to detect and evaluate morphological changes of the spine in patients with SAPHO syndrome, needing magnetic resonance (MR), computed tomography, and/or bone scan which are accompanied by costs and radiation exposure. We herein detected, by using tomosynthesis, typical vertebral changes in a 52-year-old woman who had palmoplantar pustulosis. Tomosynthesis clearly demonstrated a semicircular sclerotic change in a contiguous segment in the Th11/Th12 level (**arrow** in **Figure 1a**), that is relevant to hypo- and hyper-intensity in T1-weighted (**arrow** in **Figure 1b**) and fat-saturated T2-weighted (**arrow** in **Figure 1c)** MR images, respectively. In contrast, these changes were almost undetectable in plain radiographs (**Figure 1d**). Tomosynthesis has been reported to be useful to detect morphological changes of the sacroiliac joints in axial spondyloarthritis [2]. The current case would further

broaden the yield of tomosynthesis in the diagnosis and management of a wide spectrum of spondyloarthropathies.

Conflicts of Interest

M Kato has received research grants from AbbVie, Actelion, GlaxoSmithKline, Janssen, Nippon Shinyaku and Novartis and speaking fees from Astellas, Boehringer, Eisai, Eli Lilly, Janssen, Mitsubishi Tanabe and Pfizer. T Atsumi has received research grants from Astellas, Takeda, Mitsubishi Tanabe, Chugai, Daiichi-Sankyo, Otsuka, Pfizer, Alexion, Bayer, Otsuka, Chugai, Takeda, Eisai, Bristol-Myers Squibb, Daiichi Sankyo, Mitsubishi Tanabe and Asahi Kasei, consultant fees from Ono, Sanofi, Daiichi Sankyo and Pfizer and speaking fees from Mitsubishi Tanabe, Chugai, Astellas, Takeda, Pfizer, Daiichi Sankyo, Bristol-Myers Squibb and Eli Lilly. Other authors have nothing to declare.

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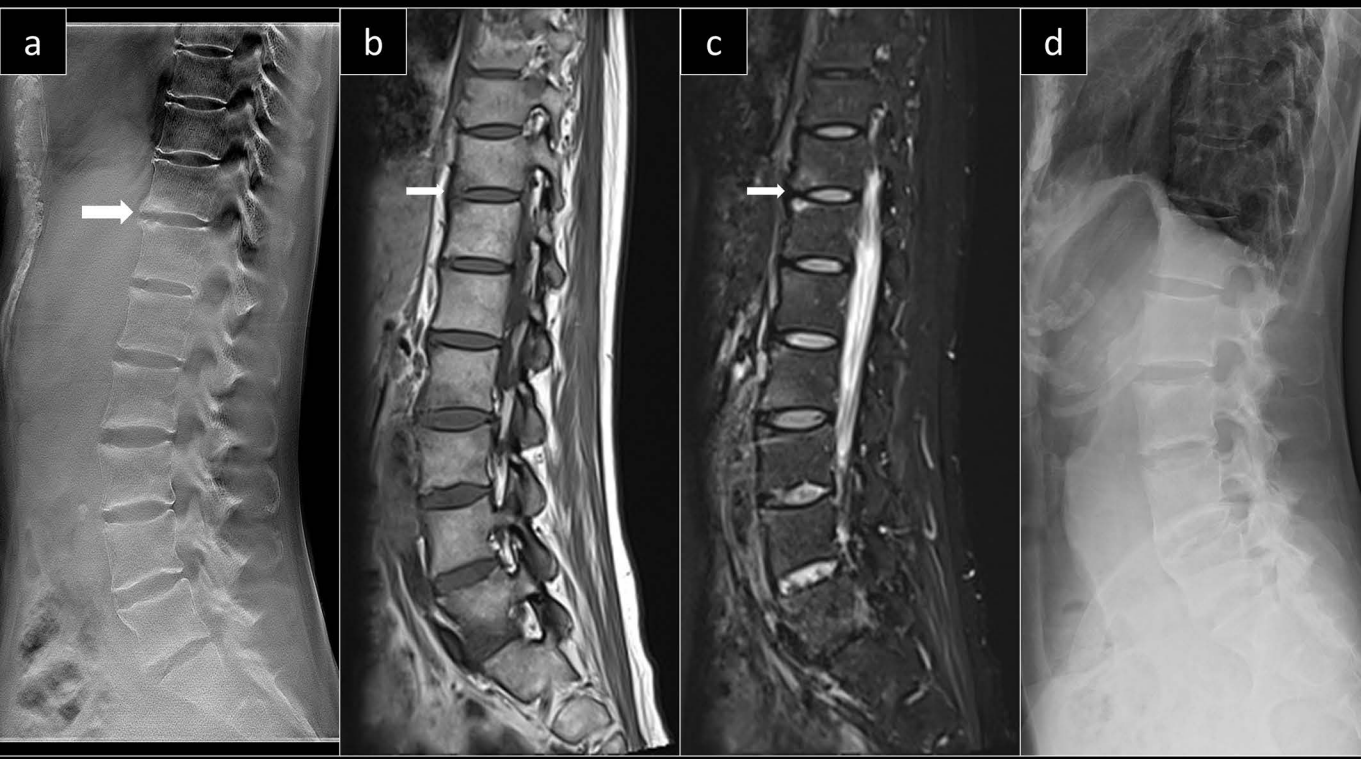
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