Clinical vignette

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Recurrent erosive synovial osteochondromatosis of the wrist mimicking gouty tophi

A 40-year-old man presented with left wrist pain. A radiograph showed calcific nodules in the volar side of the wrist (arrow in Fig. 1A) and erosion of the distal radius (triangle in Fig. 1A). Surgical excision was done and synovial osteochondromatosis was diagnosed. Seven years later, he presented with recurrent left wrist pain and swelling. A radiograph showed multiple calcified masses around the wrist (arrows in Fig. 1B) and erosions of carpal bones and of the distal radius adjacent to the masses (triangles in Fig. 1B), which looked like gouty tophi. Dual-energy computed tomography showed multiple osteocartilaginous masses covering the dorsal and volar sides of the wrist (Fig. 1C), but no monosodium urate deposit. Recurrent erosive synovial osteochondromatosis was diagnosed rather than gout. Synovial osteochondromatosis is characterized by multiple osteocartilaginous nodules around joints. It commonly affects knee and hip joints, but wrist involvement is unusual [1]. Bony erosions in synovial osteochondromatosis develop in joints with a tight capsule, such as the wrist and hip, and are thought to be caused by pressure effects [2]. Dual-energy computed tomography detects monosodium urate deposits with good accuracy and is useful in diagnosing or excluding gout in bone erosive disease, as in this case, which resembled gouty tophi with multiple bony erosions.

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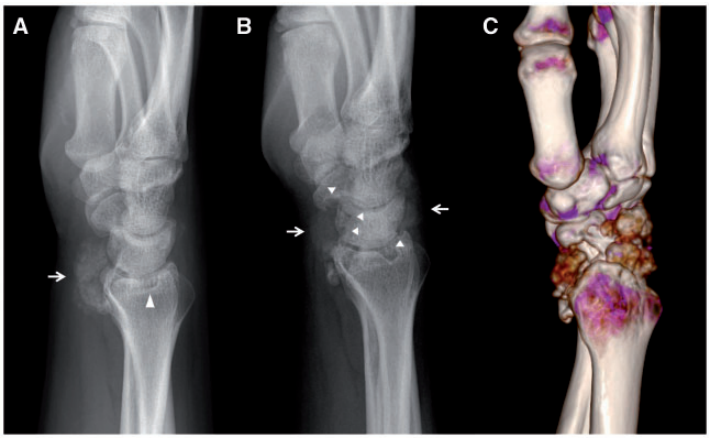
Fig. 1 Bone erosions of the wrist caused by recurrent synovial osteochondromatosis



(**A**) This plain radiograph of the left wrist shows calcific nodules in the volar side of the wrist (arrow) and erosion of the distal radius (triangle). (**B**) A radiograph taken 7 years later shows multiple calcified masses around the wrist (arrows) and erosions of carpal bones and of the distal radius adjacent to the masses (triangles). (**C**) Dual-energy computed tomography shows multiple osteocartilaginous masses covering the dorsal and volar sides of the wrist, but no monosodium urate deposit.

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