

Tuberculosis monoarthritis of the wrist mimicking rheumatoid arthritis

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A 78-year-old man presented with a 10-month history of pain and swelling in his left wrist. Medical history was negative for preceding infections or trauma. Physical examination revealed a swollen and tender wrist joint. Erythrocyte sedimentation rate (32 mm/h) and C-reactive protein level (16 mg/L) were increased. Tests for rheumatoid factor, anti-cyclic citrullinated peptide, and anti-nuclear antibody gave negative results. Synovial aspiration showed increased leukocyte count (8200/mm³) without crystals. X-ray showed juxta-articular osteoporosis, erosions, and narrowing of the intercarpal joint space (Phemister's triad; Figure 1a). Computed tomography showed multiple osteolytic lesions in the carpal bones and calcifications in soft tissue (Figure 1b). Radiocarpal dislocation was also observed (Figure 1c). Synovial biopsy showed granulomatous inflammation, and tissue culture revealed the presence of *Mycobacterium tuberculosis*. Chest radiograph and sputum culture findings were normal. Tuberculosis (TB) monoarthritis was diagnosed, and a four-drug anti-TB regimen was started for the patient.

Skeletal TB accounts for 5%-15% of extra-pulmonary TB cases. Articular involvement is generally monoarticular and involves weight-bearing joints such as hip and knee. Wrist joint involvement is quite uncommon and accounts only for 1% of the skeletal TB cases (1). Joint findings were non-specific; however, Phemister's triad, including periarticular osteoporosis, joint space narrowing, and erosions, could be seen (2). Our case is a good example of TB monoarthritis. The striking radiographic features that helped us in diagnosis were Phemister's triad and cold abscess formation in the soft tissue. In our patient, 9 months of TB treatment resulted in symptomatic control of pain and swelling. However, due to the extensive erosions, wrist joint movement was restricted with some functional impairment.

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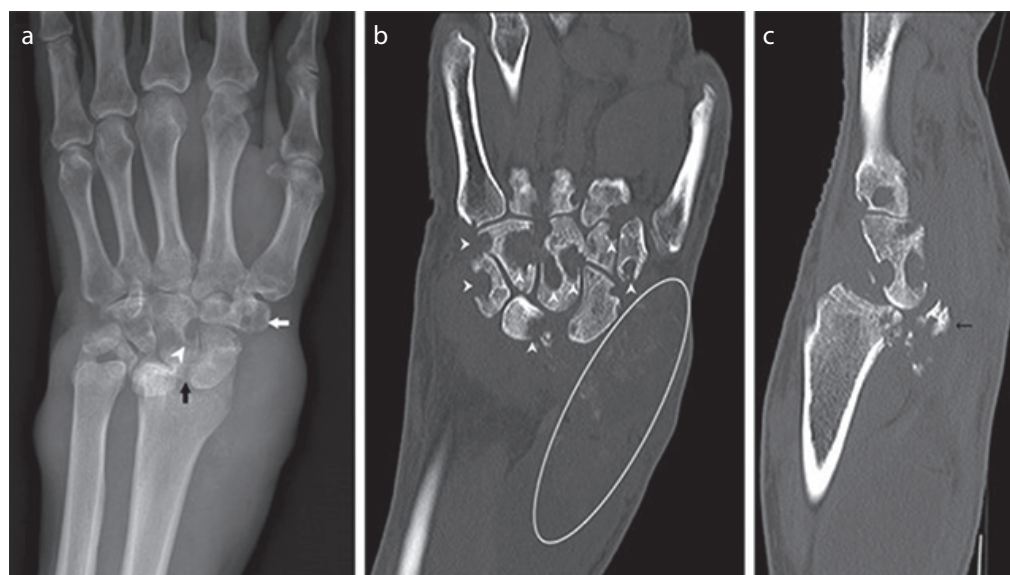


Figure 1. a-c. X-ray of the wrist, showing juxta-articular osteoporosis (white arrow), erosions (arrowhead), and narrowing of the intercarpal joint space (black arrow) (a); computed tomography revealed multiple osteolytic lesions in the carpal bones (arrowheads) and calcifications in the soft tissue, suggesting cold abscess formation (highlighted in ellipse) (b); radiocarpal dislocation was also observed (black arrow) (c).

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References

1. Procopie I, Popescu EL, Huplea V, Plesea RM, Ghelase SM, Stoica GA, et al. Osteorarticular Tuberculosis-Brief Review of Clinical Morphological and Therapeutic Profiles. *Curr Health Sci J* 2017; 43: 171-90.
2. Chattopadhyay A, Sharma A, Gupta K, Jain S. The Pnemister triad. *Lancet* (London, England) 2018; 391: e20. **[CrossRef]**