

A Diagnostic Conundrum: Extrapulmonary Tuberculous Osteomyelitis Mimicking Osteosarcoma in the Proximal Femur

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INTRODUCTION:

Tuberculosis, caused by mycobacteria, can mimic various diseases, especially those affecting the musculoskeletal system. Considering tuberculosis as a potential diagnosis for musculoskeletal tumors is crucial due to its significant implications. Literature consistently shows that tuberculosis can imitate a range of diseases, including cancers, even in technologically advanced countries.

REPORT:

A healthy 39-year-old woman presented with a persistent swelling in her right hip that had been growing for 2 years, with a rapid increase in size and discomfort over the past 5 months (Figure 1). She had no history of trauma, fever, cough, night sweats, weight loss, or exposure to tuberculosis. Despite the swelling, she managed her daily activities without hindrance.

Physical examination revealed a large, soft, non-tender swelling over her right proximal femur, not attached to the skin, with no visible dilated veins, and palpable lymph nodes in the groin. Blood tests were mostly normal, except for an elevated ESR. Chest radiography showed no abnormalities. Radiographic evaluation revealed a lytic lesion with bony erosion on the femur, confirmed by MRI to be a sizable, complex cystic lesion primarily affecting the right proximal femur (Figure 2, 3, and 4).

A biopsy confirmed *Mycobacterium tuberculosis* complex, leading to a diagnosis of extrapulmonary tuberculosis osteomyelitis. The patient was managed conservatively with antituberculosis therapy and is being regularly monitored.



Figure 1

Figure 2

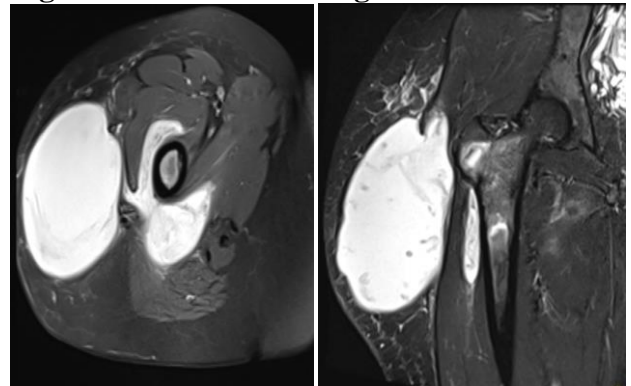


Figure 3

Figure 4

CONCLUSION:

This case report highlights the challenge of diagnosing extrapulmonary tuberculous osteomyelitis, which can resemble osteosarcoma in the proximal femur. It stresses the need for a high suspicion of tuberculosis in patients with bone lesions, particularly in high-prevalence regions. A thorough evaluation, including history, imaging, and histopathology, is crucial for an accurate diagnosis and timely treatment with anti-tuberculosis therapy.

REFERENCES:

1. Maduakonam DE et al. Tuberculous osteomyelitis of the proximal femur masquerading as bone secondary: A case report. *Journal of Orthopaedics, Trauma and Rehabilitation.*