

## A TYPICAL DIAPHYSEAL TIBIA OSTEOMYELITIS WITH AN ATYPICAL ORGANISM

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### INTRODUCTION:

Osteoarticular tuberculosis is a prehistoric disease, whereby Johann Scholein estimated that *Mycobacterium tuberculosis* may have existed for 3 million years. Incidence of extrapulmonary tuberculosis in Malaysia is in a rise, reported 15.7% in 2020.<sup>(1)</sup> Primary diaphyseal involvement is believed to be attributed by a lodged tuberculous embolus in the nutrient vessel that fails to dislodge to the common involvement site, the metaphyseal region. This solitary lesion presents as a cold abscess, which may mimic tumour or other granulomatous lesions.<sup>(2)</sup>

### REPORT:

18-year-old lady presented with left leg pain for 6 months, associated with swelling. She did not have fever, occasionally took paracetamol to ease the pain at night. As the symptoms did not bother her much, she sought medical attention only when the swelling ruptured with pus discharge. There was no known tuberculosis contact, nor experiencing any constitutional symptoms. She never missed her vaccination. On examination, a well-built lady with swelling left midshin, tender, erythematous with minimal seropurulent discharge through a punctum, neurovascular examination was normal. Erythrocyte sedimentation was raised at 64 mm/hour, other blood investigations were normal. Plain radiographs of left tibia and fibula in anteroposterior and lateral views (Figure 1) showed mixture of radio-lucency & -opacity over tibia diaphyseal region with periosteal thickening. MRI (Figure 2) showed large intraosseous collection within left tibia diaphysis communicating with subcutaneous abscess via cloaca with cortical thickening, suggestive of involucrum, plus periosteal reaction with surrounding soft tissue inflammation. Intra-operative bone culture reported scanty acid fast bacilli. Histopathological examination of the tissue and bone revealed caseating chronic granulomatous

inflammation. Anti-tuberculosis agents were commenced and her wound healed completely after 3 months.



Figure 1

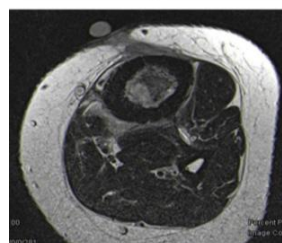
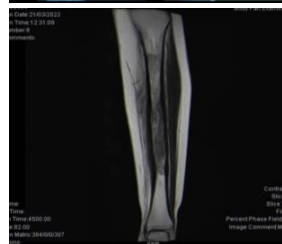


Figure 2

### CONCLUSION:

Extraspinal tuberculous osteomyelitis, though rare in the diaphyseal region, should always be considered even in immunocompetent individuals. The earlier the treatment, the better the outcome.

### REFERENCES:

1. Management of Tuberculosis, 4<sup>th</sup> edition (2021) Malaysia Clinical Practice Guidelines
2. Chattopadhyay, P et al. "Primary diaphyseal tuberculosis of the tibia." *Singapore medical journal* vol. 50,6 (2009): e226-8.