



A Diagnostic Dilemma: TB of the Foot & Ankle

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INTRODUCTION:

Tuberculosis (TB) is an endemic infectious disease in Malaysia caused by mycobacterium tuberculosis. 10% of extra-pulmonary TB affects the musculoskeletal system¹. In the foot, TB involves the calcaneus, talus, 1st metatarsal and navicular bones in decreasing order of frequency.

REPORT:

A 23yo male presented with left ankle and anterior chest wall swelling for 1 year. The ankle swelling progressed to ulcer with pus discharge. He denies fever, constitutional and pulmonary symptoms. He was initially treated at the local clinic with analgesia and antibiotics with no avail. Clinical examination revealed a cachexic looking gentleman whom had limited ankle ROM and could not tolerate weight bearing. There was diffuse swelling, tenderness over the ankle with 2x2cm ulcer at the medial and lateral ankle pouring pus (Figure 1). Laboratory investigations revealed raised CRP and ESR but a normal WBC count. Plain radiographs revealed lysis and destruction of the calcaneum and talus with calcification (Figure 2). MRI suggested calcaneal osteomyelitis complicated with hindfoot collection and tenosynovitis (Figure 3). Initial TB workup was inconclusive however biopsy sample was positive for acid fast bacilli. He was started on anti-TB therapy by infectious control. After a month of therapy, the wound gradually healed and swelling showed improvement.



Figure 1: Clinical picture of the lateral ankle



Figure 2: X-ray of the left ankle

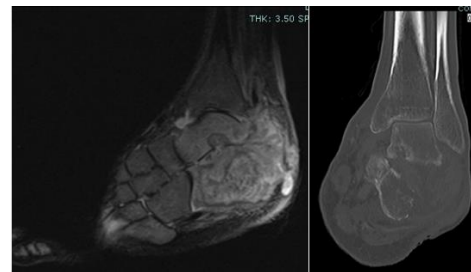


Figure 3: MRI of the left ankle

DISCUSSION:

TB (the great mimicker) of tumour, osteomyelitis, and inflammatory arthritis always leads to a diagnostic dilemma due to its lack of specific clinical and radiological presentation. Radiographic appearance of tuberculosis depends on the stage of disease presentation. MRI is a preferred modality for diagnosis however features of erosion, synovitis and osteoporosis may be consistent with other chronic diseases. Better diagnostic techniques are thus required for timely diagnosis and prevention of further deterioration and destruction.

CONCLUSION:

Diagnosing foot and ankle TB is challenging due to unusual presentation and variety of foot pathologies which can mimic TB with its lack of specific clinical and radiology presentation. Always biopsy all cultures and culture all biopsies.

REFERENCES:

1. Korim M. Foot and ankle tuberculosis: case series. *Foot (Edinb)*. 2014;24(4):176-9.