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Challenges in Managing Ankle Tuberculosis: A Delayed Treatment Resulting in Severe Joint Destruction

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INTRODUCTION:

Managing extrapulmonary tuberculosis continues to be a challenging task. A unique case of ankle tuberculosis is reported, in which the patient presented late and suffered from extensive joint damage. Nevertheless, positive outcome was achieved through timely administration of anti-tuberculosis chemotherapy and surgical intervention.

REPORT:

A 44-year-old woman presented to our facility with persistent painful swollen ankle, despite underwent an initial ankle arthrotomy and external fixation for left ankle tuberculosis at a different institution. The patient reported experiencing ankle painful swelling a year prior, initially diagnosed as ankle synovitis and tendon Achilles tendinopathy, which temporarily resolved following corticosteroid injection. However, similar complaints recurred few months later, accompanied by worsening swelling, deformed joint, and discharging sinus. Radiographs and MRI revealed diffuse tibio-talar joint erosion with rim-enhanced collection. Diagnosis of Mycobacterium tuberculosis was confirmed through smear acid-fast bacilli positivity and culture isolation. Anti-tuberculosis chemotherapy was initiated, and arthrotomy washout with external fixation was performed to address the infected unstable ankle joint.

Despite the efforts made to control the infection, the patient continued to experience persistent, painful swollen ankle, and weeping surgical wound. Repeated radiograph showed significant articular damage with distorted architecture. To control local disease and stabilize the disorganized joint, surgical revision was performed. This involved excising caseous necrotic tissues and filling the void with cement spacer after thorough washout. The external fixator was also revised, and adequate distraction applied. The patient completed 9-months course anti-tuberculosis chemotherapy, during which symptoms improved significantly. Soft tissue and septic parameters remained normal. Finally, the spacer was removed, and arthrodesis was induced.

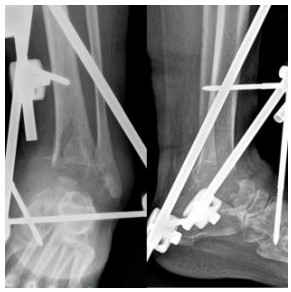

Figure 1: Extensive ankle joint destruction

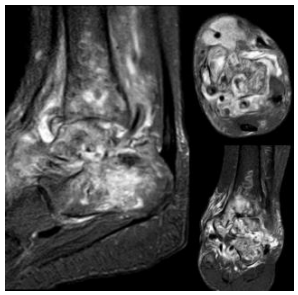

Figure 2: Rim-enhanced collections surrounding ankle joint with bony erosion

CONCLUSION:

Prompt diagnosis and timely administration of anti-tuberculosis chemotherapy remain the primary approach. Surgical interventions are typically reserved for cases that do not respond to initial treatment, cases with uncertain diagnosis requiring biopsy, or for joint stabilization and reconstruction at later stage.

REFERENCES:

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