

A Case Report on Tuberculous Knee: Diagnosis, Treatment, and Outcome

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INTRODUCTION:

Tuberculous arthritis is an uncommon form of extrapulmonary tuberculosis and comes in third after spine and hip¹. Its diagnosis can be challenging due to the non-specific clinical presentation. This case report aims to highlight the importance of considering tuberculous arthritis in the differential diagnosis of knee joint disorders.

CASE PRESENTATION:

A 47-year-old female with underlying pulmonary tuberculosis presented with one year history of progressive pain, swelling, and stiffness in the right knee. The pain was insidious in onset and was not associated with any specific injury. The patient denied any history of trauma.

Clinical Examination:

On examination, the right knee exhibited moderate effusion, tenderness on palpation, and restricted range of motion. However, the knee is not erythematous and appears to have dilatation of veins (Figure 1).

Investigations:

1. Blood Tests:
 - Complete blood count: Mild leukocytosis.
 - Erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP): Elevated.
2. Imaging:
 - X-ray of the right knee: Joint space narrowing, periarticular osteopenia, and soft tissue swelling.
3. Microbiological Investigations:
 - Synovial fluid analysis: Acid-fast bacilli (AFB) smear positive for *Mycobacterium tuberculosis*.

A right knee arthrotomy washout was done and noted that the tissues around the knee joint was

caseous (Figure 2), tracking into the joint. A total of two washouts were needed as she developed recurrence a month after the first washout. In addition, patient was on standard anti-tuberculous therapy. On follow-up, the patient is well and responding to treatment.



Figure 1: Right knee preoperative picture



Figure 2: Intraoperative picture

CONCLUSION:

Tuberculous knee arthritis is a rare manifestation of extrapulmonary tuberculosis that requires a high index of suspicion for timely diagnosis. Early recognition, appropriate anti-tuberculous therapy, and joint care can lead to a favorable outcome.

REFERENCES:

1. Peto H M et al. Epidemiology of extrapulmonary tuberculosis in the United States, 1993-2006. *Clin Infect Dis.* 2009;49(09):1350–1357.