

# Synovial Tuberculosis Masquerading As A Monoarticular Inflammatory Arthritis

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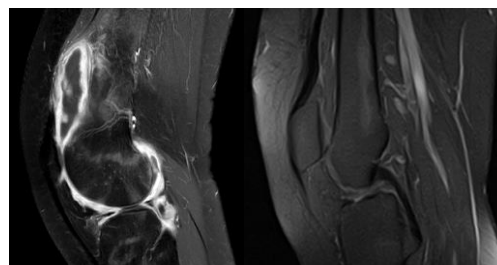
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## INTRODUCTION:

Extra-pulmonary tuberculosis (TB) is reported in less than one in five cases with the knee affected in 8% after the spine and hip. We report here a case of a synovial TB in a young patient which symptoms presented likely of an inflammatory arthritis in nature.

## CASE REPORT

This is a case of a 16 year old girl who presented with swelling over right knee for a period of 3 years associated with occasional pain but worsening a few weeks prior to our evaluation. She had neither presentation of fever nor any constitutional symptoms. Noted no history of trauma to the knee. Further history, patient was noted to have morning joint stiffness. On examination, there was diffuse swelling of the right knee, non-erythematous and non-tender with full range of motion. Systemic examination was unremarkable. Blood investigation showed no increment in leukocyte count, erythrocyte sedimentation rate (ESR) of 62mm/hr. Patient was positive for rheumatoid factor (RF) and antinuclear antibody (ANA) with titer 1:160. Plain radiograph of the right knee revealed no bony or soft tissue abnormality. Subsequently a MRI was performed, showed marked synovial thickening which are suggestive of synovitis of right knee joint. An open biopsy was done, although cultures were negative for MTB or NTM, histopathological examination reported a chronic granulomatous inflammation which was highly suggestive of TB. AntiTB treatment was given for a total of 1 year and noted improvement in knee swelling and pain. A MRI performed post treatment showed a resolving synovial thickening and joint effusion which was suggestive of good response to treatment.



**Figure 1: MRI Right Knee before and after treatment.**

## DISCUSSIONS:

Generally, TB knee is usually monoarticular, and is the 3<sup>rd</sup> most common site (1). The large joints such as the hip and knee are most commonly involved. TB arthritis presents usually as chronic pain, swelling, local tenderness, warmth and progressive loss of function. Cold abscesses, sinuses and constitutional symptoms are common features. However, our case differs from those reported as it did not have a typical presentation of TB knee and our patient was very well with no constitutional symptoms. Initial workout pointed more in the direction of an auto-immune arthritis. Differential diagnosis that we considered was TB due to its high prevalence in Sabah. Besides imaging, a synovial biopsy is essential to identify the causative agent.

## CONCLUSION:

Musculoskeletal TB is known to be a great mimicker of other pathology. A high index of suspicion is needed especially in a TB-prone area.

## REFERENCES:

1. S Lahrabli, N El Amrani, et al. Osteoarticular tuberculosis of the knee or white tumor of the knee: Report of a case. *Annals of Physical and Rehabilitation Medicine*, 2014-05-01, Volume 57, Pages e187-e187