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A Rare Case of Rheumatoid Tenosynovitis with Unilateral R.A. Mimicking Tuberculosis Tenosynovitis

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ABSTRACT

Rheumatoid arthritis is an autoimmune disease chronic in nature targeting multiple joints. Savithri 48 years old female hailing from Keelkatalai house maid by profession came to Sree Balaji Medical College and Hospital in the orthopaedic OPD. This patient with atypical asymmetrical unilateral multiple joint shows a rare presentation of rheumatoid arthritis with flexor tendon synovitis shows the presence of atypical presentations and the importance of obtaining histopathological tissue diagnosis.

Key words: Tenosynovitis, MRI, Arthritis

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INTRODUCTION

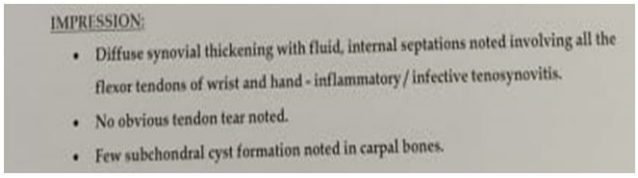
Rheumatoid arthritis is an autoimmune disease chronic in nature targeting multiple joints. The synovium is involved as the first site of the inflammatory process, which if not addressed might lead to irreversible damage to the nearby cartilage and bone [1]. It is now known that autoantibodies that are characteristic of RA, and further tests such as anti CCP, RF are present positive even before the clinical presentation. Once rheumatoid arthritis is established, a number of mechanisms serve which leads to the persistence of the disease [2,3]

A proper detailed review of the mechanisms that initiate and proceed for therapeutic and prevention strategies. Rheumatoid arthritis affects the flexor tendons of the finger in about 25-40% individuals but goes undetected due to no symptoms and further involvement over the flexor tendon at the forearm tendons are very rare, tuberculosis tenosynovitis has same symptoms which mimics the problem [4].

The transition from a normal to nonspecific inflammatory synovium and subsequently to an established rheumatoid arthritis synovium is the result of a breakdown of immune tolerance both at the systemic level and at the synovial tissue level. The presence of circulating ACPA and RF, years before the appearance of clinical symptoms and the first histological changes in the (presumed) unaffected joints of patients with RA indicates that the first stages of this degradation of immune tolerance are subclinical [5]. The importance of mediators of innate immunity in initiating synovial responses is increasingly recognized. This review will describe the main histopathology and immune histologic features of RA synovitis and address some potentially important mechanisms that may facilitate the initiation and progression of rheumatoid arthritis synovitis.

CASE PRESENTATION

Savithri 48 years old female hailing from keelkatalai house maid by profession came to Sree Balaji Medical College and Hospital in the orthopaedic OPD. With complains of swelling over the right wrist and ankle since 3 years. Patient also complained of pain in flexing the fingers over the right hand since 1 year. Swelling over the wrist was 8*5 CMS and was soft in consistency. Pain was insidious in onset dull aching more in flexion. Patient complains of low back ache since 6 months which was no radiating. There was no history of morning stiffness; patient gives no history of episodic increased pain with fever in the evening. No history of loss of appetite and loss of weight. Patient gives no other history of any co-morbidity in the past. With clinical examination and history patient was clinically diagnosed with tuberculosis tenosynovitis (Figures 1-4) [6].


IMPRESSION:

- Diffuse synovial thickening with fluid, internal septations noted involving all the flexor tendons of wrist and hand - inflammatory / infective tenosynovitis.
- No obvious tendon tear noted.
- Few subchondral cyst formation noted in carpal bones.

Figure 1: MRI report of wrist and hand.

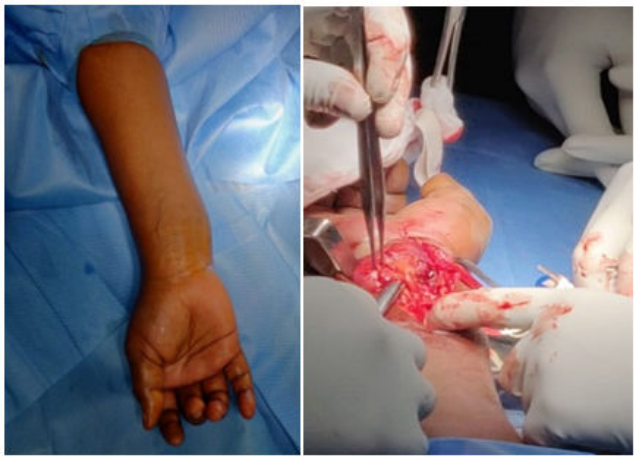
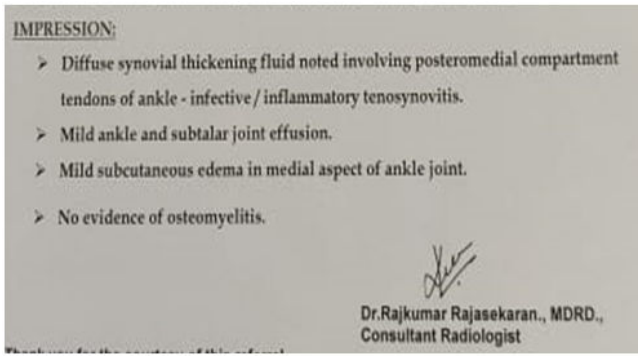


Figure 2: Clinical picture and operative picture.


IMPRESSION:

- Diffuse synovial thickening fluid noted involving posteromedial compartment tendons of ankle - infective / inflammatory tenosynovitis.
- Mild ankle and subtalar joint effusion.
- Mild subcutaneous edema in medial aspect of ankle joint.
- No evidence of osteomyelitis.

Dr.Rajkumar Rajasekaran., MDRD.,
Consultant Radiologist

Figure 3: MRI report of leg and ankle.

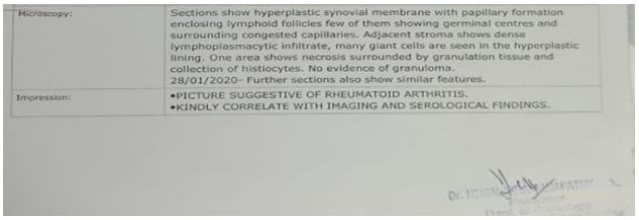

Microscopy:	Sections show hyperplastic synovial membrane with papillary formation enclosing lymphoid follicles few of them showing germinal centres and surrounding congested capillaries. Adjacent stroma shows dense lymphoplasmacytic infiltrate, many giant cells are seen in the hyperplastic lining. One area shows necrosis surrounded by granulation tissue and collection of histiocytes. No evidence of granuloma. 28/01/2020- Further sections also show similar features.
Impression:	•PICTURE SUGGESTIVE OF RHEUMATOID ARTHRITIS. •KINDLY CORRELATE WITH IMAGING AND SEROLOGICAL FINDINGS.

Figure 4: Histopathology report.

Patient was worked up for the same with chest x-ray, mantoux and other basic investigations. Where only ESR and CRP were raised and other modalities. Patient was investigated for MRI of the foot and ankle suggestive of infective/inflammatory tenosynovitis. On further rheumatologically work up was done in which anti CCP was raised taking the diagnosis in favour of Rheumatoid arthritis with tenosynovitis. Later when x-ray of bilateral hand and foot, and spine x-ray was taken which showed arthritic features of unilateral involvement of the SI joint, PIP of right hand and PIP of the right foot [7-10].

Patient was further taken for diagnostic and therapeutic total synovectomy was done in which had no rice body granuloma; rather it was greyish white with rubbery consistency.

On histopathology the features suggested for rheumatoid involvement of the synovial sheath covering the flexor tendon.

DISCUSSION

India having a burden of tuberculosis all throughout, synovitis with even rise in temperature leads to a focused diagnosis of tuberculosis. This patient with atypical asymmetrical unilateral multiple joint shows a rare presentation of rheumatoid arthritis with flexor tendon synovitis shows the presence of atypical presentations and the importance of obtaining histopathological tissue diagnosis. Importance of serological assays like anti CCP to reach an accurate diagnosis and to provide optimum treatment to the patients.

CONCLUSION

Patient was prescribed with DMARDS and was started with physiotherapy, after which on follow up after 3 months, the pain over the hip and fingers subsided and patient there was no decrease in the swelling of the ankle, later patient was operated for synovectomy over the right ankle after a total period of 4 months from presentation. Patient is now comfortable with taking the medication and after 9 months of initial presentation patient regained full range of motion without pain.

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