

# Symmetrical Lytic Lesions In Distal Ulna: An Unusual Case Of Multifocal Skeletal Tuberculosis

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## Abstract

Multifocal skeletal tuberculosis is an uncommon clinical entity. Bilaterally symmetrical lesions are even rarer. To the best of our knowledge, only one case of bilaterally symmetrical ulnar olecranon process (proximal end of ulna) tuberculosis has been reported in literature till date. We report a case of bilaterally symmetrical lytic lesions of distal end of ulna as a till-date-unreported manifestation of multifocal skeletal tuberculosis. A high index of suspicion is mandatory in tuberculosis-endemic areas to avoid delayed diagnosis in such presentations.

## INTRODUCTION

Multifocal skeletal tuberculosis is defined as osteoarticular lesions that occur simultaneously at two or more locations. We present a case of multifocal skeletal tuberculosis presenting as swelling over the dorsum of both wrists. His wrist radiographs showed bilaterally symmetrical lytic lesions in the distal end of the ulna. To the best of our knowledge, only one case of symmetrical tubercular lesions of the ulna, involving the olecranon process (proximal end) has been reported in the literature.

## CASE REPORT

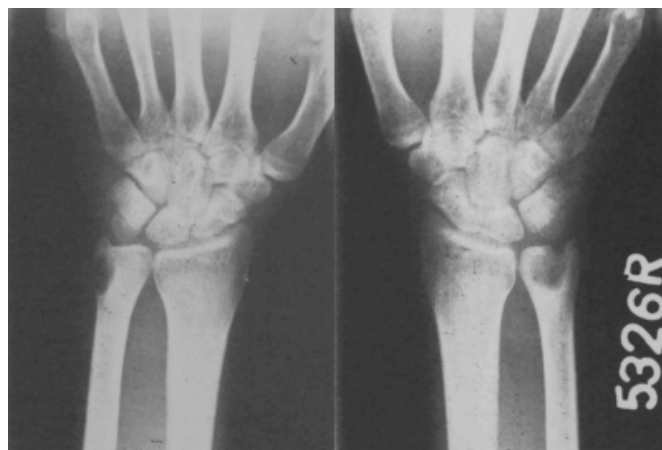
A 26-year-old male presented at Lok Nayak Hospital with pain, swelling and restriction of movements in his both wrist joints for the last 2-3 months. The pain and swelling at the wrist joints had gradually increased over this period and now he was not able to carry out his job as a typist. There was also a history of off and on fever without chills. There was no history of local trauma, complaints regarding other joints or chest-complaints. There was no past or family history of tuberculosis.

On examination, there was diffuse swelling over the dorsum of both wrists. On palpation, synovial boggiess was felt. Range of movement was preserved bilaterally with mild to moderate pain with movement. There was tenderness over the distal end of the ulna. There was no discharging sinus or pointing abscess. There was no epitrochlear or axillary lymphadenopathy. Chest and general physical examinations were unremarkable. His hemoglobin and white blood cell

count was normal. ESR was 12mm in the 1<sup>st</sup> hour. Montoux test was strongly positive. Other routine blood investigations, urine analysis and serum chemistry were normal. HIV test was negative. His plain radiographs [Fig - 1] of the bilateral wrists showed a symmetrical lytic lesion in the distal end of the ulna of both sides.

## Figure 1

Figure 1AB: Bilateral symmetrical cystic lesions in the distal end of the ulna

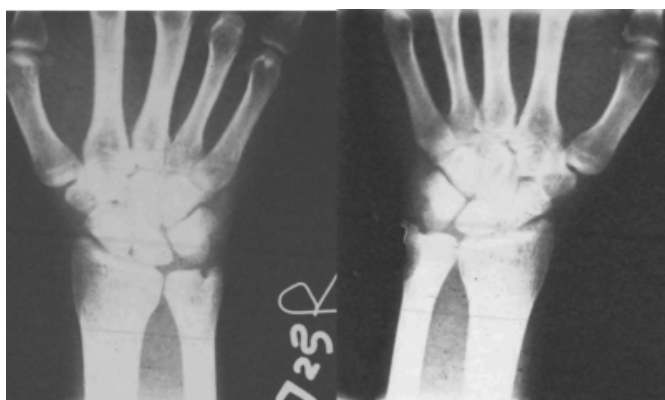


Surrounding soft tissue swelling was present. Other visualized bones appeared unremarkable. A high resolution US-guided FNA was done from hypoechoic/cystic areas in swollen soft tissue over both wrists. The cytological examination showed necrotic material, caseation, epithelioid cells, Langerhans' type of giant cells and a granulomatous lesion strongly suggestive of tuberculosis. Ziehl-Neelsen staining failed to reveal any acid-fast bacilli, however,

culture of the aspirate confirmed the presence of *Mycobacterium tuberculosis*, sensitive to isoniazid, rifampicin, ethambutol and pyrazinamide. The patient has responded very well in the nine months of multi-drug antitubercular therapy with the above-mentioned four drugs, which was started empirically before obtaining the culture report. He has regained painless range of movements at both wrists and the soft tissue swelling over the dorsum of his wrists has disappeared. Radiological recovery in the form of sclerosis around the lytic areas and resolution of soft tissue swelling is well demonstrable. [Fig - 2]

### Figure 2

Figure 2AB: Healed lesions in the distal end of the ulna after ATT



### DISCUSSION

Bilaterally symmetrical multifocal skeletal/ osteoarticular tuberculosis is a rare entity with only one case involving olecranon process of ulna, having been reported in the literature.<sup>1, 2</sup> Our case is the first report of multifocal skeletal tuberculosis presenting as symmetrical lytic lesions in the distal ulna.

The radiographic appearance of osteoarticular tuberculosis can mimic metastatic tumours or some primary osseous lesions such as eosinophilic granuloma or lymphoma, especially if multiple lytic lesions are present. To prevent a delay in diagnosis, multifocal tuberculous osteomyelitis should be considered in the differential diagnosis of multiple lytic skeletal lesions, especially in patients from endemic areas.

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