

## **Osteoarticular Tuberculosis – Unusual Presentations**

**Dr Ashok Johari**

Director, ENABLE International Centre for Paediatric Musculoskeletal Care, Mumbai, India.

Osteoarticular Tuberculosis accounts for approximately 1 to 4% of all tuberculosis cases. Most of these lesions present in the axial skeleton and involvement of the appendicular skeleton is unusual. Rare forms of tuberculous osteomyelitis such as multiple cystic tuberculosis, disseminated skeletal tuberculosis, closed multiple diaphysitis, and tuberculous dactylitis are also seen. In addition to these, tuberculosis of scapula, pubis, ilium & patella is also reported in the literature. Tuberculosis is a universal mimicker and thus could be a differential diagnosis of any osteolytic lesion. The problem of osteoarticular tuberculosis is becoming more prominent with the problems of immunocompromised patients, a significantly older population, and the emergence of strains that are multidrug resistant. The rarity and the ability of tuberculous lesion to involve unusual sites and to mimic other diseases often leads to diagnostic delays. The diagnosis is also delayed because of insidious onset and delayed extension of the disease to skin and adjacent structures including the joints in unusual presentations. The diagnosis of tuberculous osteomyelitis requires a high degree of suspicion for accurate and timely diagnosis. Challenges in the diagnostic work up are lack of familiarity with the spectrum of tuberculous bone lesions. Being a paucibacillary disease, demonstration of AFB on staining or on culture from the skeletal lesions is extremely difficult. Though isolation on culture is gold standard, histopathology of the bone lesions is very helpful in confirming the diagnosis. The disease is known to mimic all types of osseous pathology, which frequently poses diagnostic difficulties as the clinician may not keep the possibility of tuberculosis primarily in mind.

Radiographic appearances of Tuberculous osteomyelitis are variable and depends on the stage of presentation at diagnosis, ranging from mild soft tissue swelling to areas of osteolysis with local osteopenia. These findings are often confused with those seen in eosinophilic granuloma, disseminated lymphangiomas and in primary / secondary malignancy or in fungal infections such as histoplasmosis or cryptococcosis. Sometimes a solitary lytic lesion may be seen which can mimic neoplasia. Positive tuberculin test and polymerase chain reaction may be helpful, but exact sensitivity and specificity with regard to extra pulmonary tuberculosis are not yet known.

This lecture illustrates unusual presentations of tuberculosis with their diagnostic and management difficulties.