

Rare Multifocal Osteoarticular Tuberculosis In Children: A Case Report

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INTRODUCTION:

Multifocal osteoarticular tuberculosis accounts for 5 to 10% of all osteoarticular cases even in tubercular endemic countries and rarely occurs in non-immunocompromised patients and those with normal pulmonary findings. We reported a case of multifocal osteoarticular tuberculosis in 7 year old girl involvement of humerus, ribs, scapula, pelvic bone, and multilevel vertebrae involvement.

REPORT:

7 year old Malay girl, previously no known comorbid, presented with right elbow pain, swelling and limited movement for 9 months duration. The left elbow pain is mechanical then gradually reducing in trend. On further history patient had history of contact with grandfather which had pulmonary tuberculosis in 2021. Clinically, she was cachectic and left elbow showed diffused swollen elbow and distal arm with mild tenderness. Xray left elbow (Figure 1) showed lytic lesion at metaphysis distal humerus with periosteum reaction. Few months after than patient complaint of right lower limb limping gait and limited motion right hip without pain or swelling. Pelvic xray showed destruction of right ilium bone and supraacetabulum lytic lesion (Figure 2). CT thorax, abdomen, pelvic showed multiple lytic lesions at T2, T8, T9, T10, ribs and right scapula. Patient did not complain of pain or swelling at chest wall or spine. Chest examination showed no swelling, no deformity, non tender and lung findings are normal. Spine examination revealed swelling at midline L2 region with no skin changes, non tender, and neurological examination was normal.

Blood investigation showed TWC 5, ESR 106, CRP 84. Core biopsy was taken at distal right humerus and showed caseating granulomatous

inflammation (zeihl nelson show no acid fast bacilli). Serum Gene Xpert showed tuberculosis detected.

She was treated with standard 4-drug antitubercular chemotherapy (isoniazid, rifampicin, ethambutol, pyrazinamide).



Figure 1

Figure 2

CONCLUSION:

As tubercle bacilli are hematogenous, the lesions may be seen at different stages of development. Lesions may demonstrate different stages of destruction/healing and not all are symptomatic. Thus for diagnosis of multifocal osteoarticular tuberculosis, we must get thorough history and proper examination before proceed with further imaging to not missed the diagnosis.

REFERENCES:

1. A. Agarwal. et. al, Multifocal osteoarticular tuberculosis in Children, *Journal of Orthopaedic Surgery* 2011;19(3):336-40