Infantile Proximal Tibia Tuberculosis

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INTRODUCTION:

Skeletal tuberculosis is great mimicker of lesion and rare in children which making correct diagnosis difficult. It frequently affects the metaphyses of long bone in lower extremities. Early and correct diagnosis is crucial due to the distinct required treatment.

REPORT:

A healthy 13 months old girl presented with swelling over proximal left tibia for 3 weeks. Otherwise, child remain active and denied any history of trauma/fall/insect bite and TB contact. All vaccination were up to date.

On examination, proximal left leg was swollen, firm, non tender. X ray of left knee (Figure 1) shows large lytic lesion over proximal tibia metaphysis extending to epiphysis with lateral condyle collapse. MRI knee shows left tibial OM with evidence of intraosseous abscess extend to soft tissue. Blood investigation and TB workout were unremarkable.

Patient underwent incision and drainage and bone curettage left tibia. Intra-operatively, whitish debris seen with serous discharge and slough surrounding the proximal tibia metaphysis but not bridging growth plate. Exploration shows sinus from anterolateral tibia 1x1cm, clear exudate with conduit debris and well capsulated.



Figure 1: Left knee xray preoperative



Figure 2: Left knee xray postoperative

There was no growth in tissue, bone, or pus C&S, and tissue TB PCR was not detected. However tissue HPE revealed necrotising chronic granulomatous inflammation suggestive of tuberculosis. Subsequently patient was started on anti TB regime intensive phase for 2 months followed by maintainance for 10 months. Following 1/12 commencement of anti-TB, the patient additionally had bone graft impaction over proximal left tibia (Figure 2). During follow up, full ROM regained and patient is well.

CONCLUSION:

Pediatrics patient with musculoskeletal issues, such as swelling, require high suspicion of tuberculosis for early diagnosis, and extrapulmonary tuberculosis can still be diagnosed even without pulmonary tuberculosis.

REFERENCES:

- 1. Vohra R et al. Tuberculosis osteomyelitis. J Bone Joint Surg [Br] 1997; 79:562-66
- Chen SC et al. Non-spinal TB osteomyelitis in children. J Formos Med Assoc 1998; 97(1):26-31.