

Case Report: Acute Neonatal Haematogenous Osteomyelitis

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INTRODUCTION

Neonatal bone infection is rare. The diagnosis is difficult and often delayed as the clinical presentation differ from older children. Swelling and pseudoparalysis were the most significant classical features other than rarefaction of metaphyseal region in radiographic findings.

MATERIAL AND METHODS

Clinical evaluation, assessment and investigation were done during patient hospitalisation. Patient's paediatric medical record reviewed

CASE SUMMARY

28 days of life boy presented with left knee swelling for 2 days prior to presentation. His mother noticed child refused to move his left lower limb. He has no other source of infection. Antenatal was uneventful. Mother has no risk or history of antenatal infection. Immunisation is complete up to his age. Physical examination, revealed swelling left knee up to mid shin. Knee in flex position, warmth and erythematous. Child was irritable upon examination. Other systemic examinations are unremarkable. Infectious parameters suggestive of infection. Ultrasound of left knee showed subcutaneous tissue muscle layer appears thickened. No sonographic evidence of left knee joint effusion. MRI left knee revealed small intraosseous abscess over left proximal tibia suggestive of acute osteomyelitis. Subsequently he was given IV Cloxacillin for 2 weeks followed by 4 weeks of oral Cloxacillin.



Fig. 1



Fig. 1.2

Figure 1 – Infection of the left proximal tibia. There is metaphyseal rarefaction with periosteum elevation of proximal left tibia. Figure 1.2 – Complete restitution at 6 weeks follow up.

DISCUSSION

Neonatal osteomyelitis first classified by Greengard et al⁽¹⁾ (1946) as benign form, where child is not systemically ill and a 'severe' form where child is septicaemic and complicated with osteomyelitis. Our patient is a form of benign neonatal osteomyelitis was diagnosed based on classical presentation as stated by Knudsen et al⁽²⁾; pseudoparalysis, swelling over proximal left leg and radiographic metaphyseal rarefaction of left tibia (Fig. 1). Total white count and ultrasound were not of any assistance in the diagnosis but Erythrocyte sedimentation rate (ESR) was helpful with reading of 80mm/hr. MRI left knee (Fig. 2) done at day 5 of illness further confirmed the diagnosis. Radiological findings as suggested by Ron D et al⁽³⁾ was shown in this patient as early as day 5; periosteal thickening, rarefaction lesions, osteopaenia, loss of trabecular architecture. Patient was started IV Cloxacillin for 2 weeks followed by 4 weeks of oral Cloxacillin⁽⁴⁾. Patient responded well to treatment as evidence by significant reduced infectious parameter as well as complete restitution of radiological findings (Fig. 1.2) at 6 weeks follow up. No operation required.

CONCLUSION

Neonatal osteomyelitis is challenging to diagnose. Early detection and high index of suspicion with early treatment can improve the outcome and morbidity of the patient.

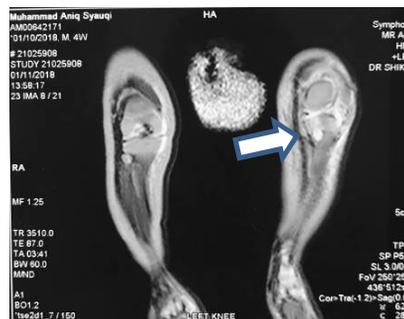


Fig. 2

Figure 2 – Intraosseous abscess of proximal left tibia.

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