

## Concurrent Septic Arthritis Of Hip And Shoulder In A Neonate

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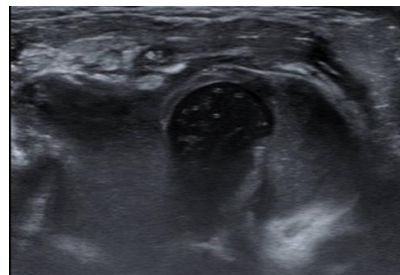
### INTRODUCTION:

Septic arthritis is a bacterial infection of the joint, which causes an intense inflammatory reaction, possibly leading to a rapid and irreversible destruction of the articular cartilage. Single joint involvement documented in 94% of children, most commonly involving the hip (41%) and knee (23%), followed by the ankle (14%), elbow (12%), wrist (4%), and shoulder (4%) [1].

### CASE REPORT:

We report a 27-days old neonate, presented with pseudoparalysis of the left hip for three weeks' duration associated with fever. He had a history of admission to a neonatal ward for polycythemia with jaundice. He had a temperature of 38<sup>0</sup> Celsius. Left hip was kept in flexed position with redness and swelling over it. He was irritable upon manipulation of the affected joint. His white cell count was elevated (20x10<sup>3</sup>/μL) with predominant polymorphs. CRP was markedly elevated (124mg/L). Urgent ultrasound showed 2x4 cm hyperechoic collection inside left hip with extracapsular extension and left hip dislocation (figure 1). An immediate arthrotomy was performed revealing 20cc of pus collection with dislocated and eroded femoral head. The sample grew *Staphylococcus Aureus* which was sensitive to cloxacillin. On the second post-operative day, observed no spontaneous movement of the right shoulder. Chest x-ray showed lytic lesion of metaphysis region of left humerus (figure 2). Urgent ultrasound showed collection within the right shoulder joint involving the epiphyseal plate extending to the metaphyseal region. Features suggest osteomyelitis of the proximal humerus with the collection ruptured into the joint causing septic arthritis. Arthrotomy of right shoulder showed 3cc pus collection with floating slough inside the joint. The anterior surface of the humeral head seemed eroded and loss of a healthy shiny appearance of cartilage.

**Figure 1:** Ultrasound showed left hip hyperechoic collection with femoral head dislocation



**Figure 2:** Plain radiograph showed increased right shoulder joint space with lytic lesion of right proximal humeral metaphysis



### DISCUSSION:

Multifocal septic arthritis usually results from an immunocompromised host and delayed presentation. The delayed presentation allows bacteremia and multifocal spread of infection. Concurrent septic arthritis of multiple joint often leads to a poorer outcome. [2] Prolonged hospital stay often predisposes neonate to another hospital-acquired infection.

### CONCLUSION:

Early diagnosis and aggressive surgical drainage of a septic arthritis are necessary especially in a high-risk group for concurrent multiple joint involvements.

### REFERENCES:

1. Tan et al., International Society for Stem Cell Research (ISSCR) 7<sup>th</sup> Annual Meeting 2009; Pg226.
2. Frank G, Mahoney HM, Epps SC. Musculoskeletal infections in children. *Pediatr Clin North Am.* 2005; 52:1083–1106.