

## NEONATAL SEPTIC KNEE ARTHRITIS - A CASE REPORT

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**Introduction:** Septic knee arthritis in children is a surgical emergency that requires prompt recognition, drainage and joint washout followed by intravenous antibiotics. This is a case of a premature neonate diagnosed with septic knee arthritis who unfortunately developed catastrophic complications from the condition despite early detection and surgical intervention.

**Discussion:** This is a premature baby boy delivered at 27 weeks for severe IUGR. He was ventilated in our NICU, and referred to us at 66 days of life for suspected left knee septic arthritis. His left thigh was suddenly noted to be swollen, erythematous and warm with no local precipitating event, and was treated for cellulitis. As the swelling progressed distally towards the knee, he was referred to Orthopaedics to rule out septic arthritis. He was on pre-existing prolonged intravenous Meropenem for neonatal sepsis of prematurity. An urgent ultrasound of the left knee and thigh was performed which revealed a left suprapatellar collection with intraarticular extension and echogenic debris (Figure 1). We immediately performed an arthrotomy washout of the knee which revealed intraarticular frank pus. During a second washout 5 days later, we noticed a brodie abscess and destruction of cartilage intraoperatively. Tissue and pus cultures grew *Staphylococcus aureus*, and the patient was promptly commenced on intravenous Cloxacillin for six weeks. He responded to antibiotics with resolution of the infection, however, he suffered from devastating sequelae from the condition, leaving the knee in valgus, with damage to the epiphyseal plate, resulting in shortening (Figure 3).

**Conclusion:** This child had various risks factors for septic arthritis, including prematurity, Caesarean delivery, ventilation in NICU, and invasive umbilical and venous catheterization. Early detection and intervention of neonatal joint septic arthritis do not exclude the possibility of lifelong devastating outcome.