

# STAPH. AUREUS BACTEREMIA WITH SHOULDER SEPTIC ARTHRITIS, HUMERUS OSTEOMYELITIS AND BRACHIAL PLEXUS NEURITIS IN PREMATURE INFANT

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## INTRODUCTION:

*Staph. aureus* bacteremia can cause distant hematogenous spread. The incidence in infants have high mortality rates, but decreased significantly with improved treatment modalities<sup>1</sup>. We share our experience in managing a hematogenous spread of *Staph. aureus* bacteremia to shoulder with antibiotics.

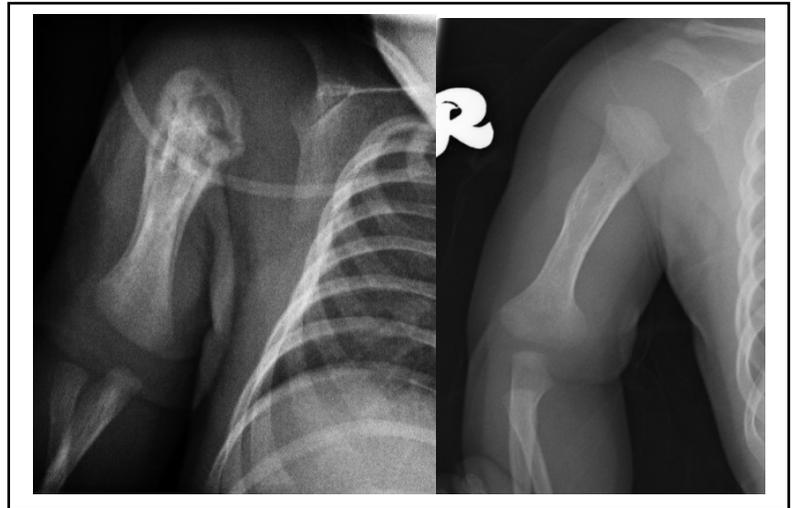
## REPORT:

A 31 weeker premature infant from NICU with birthweight of 1.26kg, referred at 3 weeks of life due to reduced movement right upper limb and irritability. There was diffuse swelling at right shoulder, erythematous and floppiness right upper limb.

Her WBC and CRP was significantly raised. Ultrasound revealed hypochoic collection, air pockets with thickening capsule. Surgeon and radiologist agreed that collection size was too small for aspiration and surgical intervention was risky due to the size of baby. Hence decision made for nonsurgical treatment.

Patient was started with empirical antibiotics - IV cloxacillin 25mg/kg/dose and IV gentamycin 4mg/kg/dose. Antibiotic was escalated to IV Vancomycin after blood culture confirmed of *Staph. aureus* bacteremia. After 1 weeks of antibiotic treatment, osteomyelitic changes and local osteopenia noted in xrays. However patient clinically showing improvement with resolved swelling, reduced erythema and increased movements of upper limb. TWC and CRP was reduced by half. At week 3 of antibiotic, there was full active motions of elbow. Antibiotic was then deescalated to IV cloxacillin 75mg/kg/dose with total antibiotics course of 6 weeks. At 3 months of follow up, radiographs showed resolving osteomyelitis and child was having no residual weakness at right

upper limb. At 9 months follow up, child was completely recovered and discharged.



**Left: Shoulder xray at 1 week of treatment  
Right: Shoulder xray at 3 months post treatment**

## CONCLUSION:

Hematogenous spread of *Staph. aureus* bacteremia to shoulder and humerus may show good outcomes with early administration of antibiotics (Cloxacillin and Gentamicin as first line). Surgical intervention may not be suitable in premature babies due to the size of infant. Prompt investigation and high index of suspicion may aid in early diagnosis.

## REFERENCES:

1. Frederiksen et al., The Pediatric Infectious Disease Journal: May 2007; Volume 26; Issue 5; p 398-405