

## Clinical Utility of C- Reactive Protein Test in Early Diagnosis of Neonatal Septicemia and its Correlation with Blood Culture

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### Aims & Objectives

To isolate the infective organisms from blood and know their sensitivity pattern and to correlate with CRP levels in serum of babies with neonatal septicemia in NICU of a teaching hospital in Mangalore, India.

### Material & Methods

A prospective study was designed and the study group comprised 205 neonates of less than 7 days age, admitted in NICU for clinical features of sepsis. Blood cultures and CRP estimation were done for all the neonates. The results of both were correlated.

### Results

One hundred and twenty five neonates out of 205 had positive blood cultures. Staphylococcus aureus and

Pseudomonas aeruginosa were the most common organisms. The gram negative isolates were most sensitive to Amikacin and Cefotaxime, whereas all the gram positive isolates were sensitive to Vancomycin . Serum CRP was high in 48.78% neonates. CRP test had 86.38% sensitivity and 82.43% specificity .

### Conclusions

A simple and rapid diagnostic method like C-reactive protein test needs to be carried out with other sepsis screening methods. Though blood culture remains the gold standard for the diagnosis of neonatal septicemia, a raised C-reactive protein levels certainly helps in early diagnosis which has to be correlated later with blood culture report. It is also concluded that Staphylococcus aureus remains the principle organism for neonatal sepsis in a tertiary care setting.