Abstract

Introduction:
Neonatal sepsis is a major cause of mortality in developing countries. Accurate and quick diagnosis are difficult because clinical presentation are non-specific, bacterial cultures are time-consuming and other laboratory tests lack sensitivity and specificity. Serum procalcitonin (PCT) has been proposed as an early marker of infections in neonates.

Aims and objectives:
To assess the Procalcitonin levels in neonatal sepsis and to compare the procalcitonin with CRP in neonatal sepsis

Methods:
This study was conducted on 100 neonates who were admitted in NICU at Tirunelveli medical college during June 2016-May 2017 with clinical features of neo-natal sepsis. Blood samples were obtained for blood culture, serum CRP by latex agglutination and PCT analysis by ELISA.

RESULTS:
PCT levels was raised in significantly higher number of study case as compared to CRP. The sensitivity, specificity positive predictive value (PPV) and negative
predictive value of PCT for detecting sepsis was 96.15%, 82.43%, 65.79% and 98.39% respectively as compared to CRP with fewer or lesser sensitivity, specificity, PPV and NPV as 53.84%, 72.97%, 41.18% and 81.82% respectively. Total 96% of Culture positive neonates were showed increased level of PCT. The PCT was a significantly better early diagnostic marker for intutive event of sepsis.

Conclusions:

PCT is the better indicator of sepsis, could be able to yield better results and reliable marker than CRP in the early diagnosis of neonatal sepsis.

Key words: Neonatal Sepsis, Blood culture, CRP, Procalcitonin