

Across-sectional study was conducted in Amara city hospitals during a period from March 2013 till February 2014. The study sample includes 88 neonates (43 with clinical features of septicemia and 45 neonates who were normal). Blood culture and C-reactive protein tests were done for all neonates. In comparison with the result of blood culture, the C-reactive protein test was found that 42 out of 45 neonates as true negatives, the remaining 3 neonates showing sepsis and were considered as false negative. While 32 out of 43 neonates were considered as true positive. Finally the study showed that the sensitivity of C-reactive protein examination was 74.4%, specificity was 93% , positive predictive value was 91% and negative predictive value was 79%, so the C-reactive protein had important role in detection of the neonatal sepsis and consider an supportive tool to gold standard (blood culture) test for diagnosis of septicemia.