

EVALUATION OF QUANTITATIVE CRP IN NEONATAL SEPSIS DIAGNOSIS

M. Fatemi Khorasgani, L. Moaied Alaei, F. Pajang

Pediatrics, Islamic Azad University- Najafabad Branch-Shariati Hospital, Isfahan, Iran

Introduction: Neonatal sepsis diagnosis is a problem, so pediatricians use laboratory direct methods (blood, urine, CSF culture...) and indirect methods(leukocyte count, ESR , qualitative and quantitative CRP ...) for better evaluation. This study is about quantitative CRP in sepsis .

Material and methods: It is a cross sectional study in neonatal ward of Shariati Hospital in Isfahan in September 2008, January and February 2009.50 neonates with sepsis clinical diagnosis selected. Quantitative CRP measured at first 6 hours of diagnosis and 12-48 hours later along other laboratory exams. CRP positive range is >8 mg%. Neonates divided in 4 groups: 1- Positive blood culture(absolute diagnosis) :6(12%) 2- Clinical diagnosis and at least one positive indirect exam(Full clinical sepsis) : 22(44%) 3-Clinical diagnosis without positive indirect exam(Probable sepsis) : 4(8%) and 4-Neonates who had another diagnosis during admission : 18(36%).

Results: Quantitative CRP was negative in 36 patients which 18 were in fourth group, 16 in second and 2 in first. In 14 patients the exam was positive which 4 were in first, 6 in second and 4 were in third group. Second CRP measured in 36 patients which from 30 negatives 20 were in fourth, 2 in third, 14 in second and 4 in first group and from 6 positive 4 in second and 2 were in first group. Upon analytic methods, *Positive predictor value for CRP >8 is 100% and Negative predictor value is 50%.*

Conclusion: *Quantitative CRP measurement is a useful predictor method in neonatal sepsis diagnosis.*