

Conclusions The authors recommend for this population to use a cut-off level of 20mg/L to start antibiotics.

1194 USEFULNESS OF DELTA NEUTROPHIL INDEX FOR ASSESSING NEONATAL SEPSIS

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Objectives Early detection and aggressive treatment for neonatal sepsis is important for survival. This study investigated the significance of calculated delata neutrophil index (DNI) as a prognostic factor of severe sepsis.

Methods In a retrospective study, 72 neonates admitted to Severance Children's Hospital and Gangnam Severance Hospital between Jan 2009. to Dec 2010, were recruited. Twenty four infants were diagnosed as blood proven sepsis, and 48 neonates matched for gestation were recruited as controls. Among 24 infants, 5 patients died within 7 days.

Results In univariate analysis, mean DNI (at diagnosis, after 24hr and 72hr), C-reactive protein and WBC for sepsis group were significantly higher, and neutrophil count, platelet count were significantly lower than control groups. Among sepsis group, mean DNI at diagnosis (6.5 vs 3.7 p=0.048), DNI at 72hr (8.4 vs 2.1, p=0.003) CRP at 72hr (67 vs 21, p=0.010) and platelet count (85000 vs 141000, p=0.008) for patient with mortality were significantly increased compared to the patients with survival. Other demographic factors are not remarkable. In multiple logistic regression analysis, mortality in sepsis significantly correlated with DNI at 72hr, odds ratio (OR) 1.47, 95% confidence interval (CI) 1.1–5.6 (p=0.032), and with platelet, OR 0.93, 95%CI 0.51–0.99 (p=0.014). In ROC analysis, provided DNI at 72hr at cut off value of 12% predicted mortality with 81% sensitivity and 87% specificity.

Conclusion DNI can have implications for sepsis and may be valuable to assess the prognosis of patient with sepsis.

1195 INFLUENCE OF PROCALCITONIN (PCT) LEVELS ON THE DIRECTION OF THE THERAPY OF PERINATAL INFECTIONS

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Background and Aims One the main causes of perinatal mortality is infection. PCT measurement is regularly performed in our clinical practice. Along with the clinical condition, PCT level is an important factor in the decision of therapeutical interventions. Depending on the condition, immunoglobulin and pentoxifylline administration is considered. We wanted to examine, how much our therapeutical decisions were influenced by the PCT levels measured.

Methods We analyzed retrospectively the data of the neonates admitted in 2011 to our tertiary Neonatal Intensive Care Unit. PCT was measured routinely at the age of 16–32 hours.

Results Depending on the severity of the clinical condition and the PCT levels empiric antibiotic treatment (1st group; 34.5±4.6 gestational weeks, 2435±892 g; n=29), antibiotic therapy plus pentoxifylline (2nd group; 35.7±3.8 gestational weeks, 2515±858g; n=27) and antibiotics plus intravenous immunoglobulin with or without pentoxifylline (3rd group; 33.6±3.5 weeks; 2211±851g; n=26) were given. There was no significant difference between the groups, regarding the gestational ages and birthweights. There was a significant difference among the three groups, regarding the PCT levels at the age of 18–32 hours: (8.7±4.2; 23.3±18.4 and 34.3±219 ng/ml). There was a notable decrease of the PCT levels in every group.

Conclusions Although the dynamics of PCT show a pronounced difference, compared to the later life, with an adequate evaluation along with the clinical status it is an important tool in the diagnostics of perinatal infections. Its analysis together with the application of the immunomodulant pentoxifylline therapy may decrease the use of immunoglobulins.

1196 NORMAL VALUES OF C REACTIVE PROTEIN IN TERM BABIES

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Aim To assess the normal values of C reactive Protein (CRP) in our population. We included only those babies in which we had no retrospective doubt of having no infection.

Material and Methods We studied all babies born in the year 2010 in the Siena hospital, in whom PCR was measured for the risk of neonatal infection. we excluded from this retrospective analysis the following babies: Gestational age < 38 weeks, positive hemo-culture, high blood cell count, antibiotic treatment already begun before CRP determination.

Results Results are reported as follows: a-Babies (n) b-Mean CRP value (mg%) c-SD. Before 12 hours form birth: babies n99, CRP0.14, SD0.20. At 24 hours babies n92, CRP0.42, 0.61. At 36 hours n8, CRP0.38, SD0.56. At 48 hours babies n349, CRP0.44, SD0.51. At 72 hours babies n145, CRP0.31, SD0.38. At 96 hours babies n52, CRP0.20, SD0.30. At 108 hours n9, CRP0.05, SD0.10At 120 hours babies n4, CRP0.06, SD0.06.

Conclusion These data are useful to have CRP normality parameters in the newborn: they confirm that in the first hours of life, CRP values are far higher than those of the adults.

1197 ROLE OF LABORATORY TEST IN NEONATAL SEPSIS DIAGNOSIS

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Background Early detection of sepsis in neonate is one of the most difficult problems facing neonatal care providers and clinicians today. The ability to early diagnosis or rule out neonatal sepsis results in to limit inappropriate antibiotic exposure and lowering the cost of therapy.

This study was conducted to determine the value of some laboratory test in early detection for neonatal septicemia. Besides this, we wish to know the comment causal organisms for neonatal sepsis in our situations.

Aim To determine if any laboratory tests can predict neonatal sepsis prior to positive blood culture.

Method Is a cohort prospective study. Rule in, admitted children ages < 28d in our NICU during 2011, with suspected infection. Based on clinical and biological findings, diagnoses were categorized in: A: proven sepsis(positive blood culture) B: probable sepsis(negative blood culture but laboratory consist with sepsis. C: clinically sepsis without any positive culture or laboratory abnormalities.

The validity of laboratory tests which had performed as sepsis work-up, were compared against positive blood culture as gold standard test.

Results The most common causative organisms were E.coli (50%). Among laboratory tests, CRP had the best sensitivity(84.12%) and negative predictive value (91.3%), but poor positive predictive value (59.5%), the specificity of it was 74.46%. WBC, I/T>0.2, and segments >10% have high specificity to rule out sepsis.

Conclusion No laboratory tests alone can be used as early detection of septicemia accurately.