

3 infants measurements were normal in hospital. No CCHD was detected and there were no false negative screenings.

**Conclusion** This is the first pilot study assessing CCHD screening after homebirths and early discharge from hospital. We anticipate to present the final study results at the EAPS.

## Neonatal Infections

### PO-0513 THE INFLUENCE OF IGM-ENRICHED IMMUNOGLOBULIN THERAPY ON NEONATAL MORTALITY AND HAEMATOLOGICAL VARIABLES IN NEWBORN INFANT WITH BLOOD CULTURE-PROVEN SEPSIS

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**Background and aims** The aim of this study is to determine the effects of adjuvant immunoglobulin M-enriched IVIG therapy on mortality rate, haematological variables and length of hospital stay in newborn infant with blood culture-proven sepsis.

**Methods** Demographic and clinical features and outcome measures of 63 newborn infant with blood culture-proven sepsis were retrospectively documented from the medical records. The patients were divided into two groups according to their treatment history. The patients in Group 1 received antibiotic therapy only and the patients Group 2 received both antibiotic and adjuvant IgM-enriched IVIG.

**Results** The study revealed that mortality rates were 28.1% and 12.9% in Group 1 and Group 2, respectively. The mortality rate was lower in group 2, but the difference between the two groups was not statistically significant ( $p = 0.21$ ) *Coagulase negative Staphylococcus* was the most common type of bacteria isolated from blood culture in both groups. When compared changing of laboratory results in both groups, haemoglobin, leukocyte count and CRP levels were different between two groups during the first three days of antibiotic treatment.

**Conclusion** Our study revealed that if diagnosed at an early stage and treated aggressively with appropriate and effective antibiotics, adjuvant IgM-enriched IVIG treatment have no additional benefits in neonatal sepsis.

### PO-0514 ASSESSMENT OF RED CELL DISTRIBUTION WIDTH IN NEONATAL SEPSIS AS A PROGNOSTIC FACTOR

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**Background and aims** Red cell distribution width (RDW) is a measure of the variability in the size of red blood cells. RDW has been shown to be associated with mortality in adult patients with severe sepsis. However, RDW changes in neonatal sepsis prognosis has not been studied. We evaluated the RDW values of neonatal sepsis from our retrospective data.

**Methods** Complete blood count results were analysed retrospectively from 63 infants diagnosed with culture positive sepsis in

Baskent University Hospital Neonatal Intensive Care Unit. The RDW difference between 1st and 3rd days and the ratio of the difference and 1st day RDW (change of percentage) were calculated.

**Results** Gestational age, birth weight and Apgar scores at 1 and 5 min, resulting in mortality and improving infants showed no statistical difference ( $p > 0.05$ ). The change of RDW between 1st and 3rd days was not significant ( $p = 0.74$ ). Percentage change of RDW values with mortality rates did not differ ( $p = 0.44$ - $p = 0.85$ ).

**Conclusions** RDW could be elevated in conditions with ineffective erythropoiesis or any disease with destruction with red blood cells. During sepsis, RDW could be found increased because of the effect of proinflammatory cytokines on red cell production. In neonatal sepsis, RDW change was not found associated with prognosis. Elevated and variable RDW levels could be explained because of different postmenstrual and gestational ages like pre-term infants.

### PO-0515 IS WHAT WE DO RATIONALE? IS LUMBAR PUNCTURE INDICATED IN ASYMPTOMATIC NEWBORNS < 72 HOURS AGE WITH HIGH CRP VALUES?

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**Background** Despite of the high rate of doing (lumbar puncture) LP in neonatal units, the yield is very low. The incidence of early onset (<72 h) neonatal bacterial meningitis (EONM) was estimated to be approximately 0.3 per 1000 live births. One of the national standard indications for LP in neonates is raised CRP.

**Aim of the study** Evaluate the utility of lumbar puncture done routinely for clinically normal babies with raised CRP.

**Methods** Retrospective review of the indications, course, laboratory and clinical outcome of all term babies who had LP done in our unit over the last 10 years.

**Results** 142 newborn babies (gestation between 36 weeks) had LP done during this period in the course of sepsis and meningitis evaluation. 43 infants were excluded from the study due to incomplete medical records, none of them had meningitis. LP was done in <72 h of age in 66 babies.

None of the clinically normal babies with raised CRP had meningitis. None of the babies who had LP done <72 h had meningitis. All meningitis cases were significantly symptomatic. From 9 babies labelled meningitis only 3 babies had microbiological diagnosis of meningitis.

**Conclusion** Routine lumbar puncture for babies < 72 h of age may not be required in clinically normal term newborns with raised CRP. In babies with clinical sepsis, though the yield is not very high; there are no reliable clinical or laboratory markers to predict which babies will have meningitis and hence these babies would warrant a lumbar puncture.

### PO-0516 HEALTHCARE-ASSOCIATED INFECTIONS IN A TURKEY NEONATAL INTENSIVE CARE UNIT

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