

POSTER 14

SOLUBLE CD14 SUBTYPE (sCD14-ST) PRESEPSIN LEVELS IN PRETERM NEWBORNS WITH RDS

N. Kultursay¹, S.Ergör¹, O. Altun Koroglu¹, M. Yalaz¹, M. Akisu¹

Division of Neonatology, Department of Pediatrics, Ege University Faculty of Medicine, Izmir, Turkey

BACKGROUND

Soluble CD14 subtype (sCD14-ST), presepsin, is an early marker for systemic inflammation and sepsis. Respiratory distress syndrome (RDS) is commonly associated with maternal and neonatal inflammation and infections. We aimed to elucidate the relationship between presepsin levels and RDS in the first week of life.

PATIENT AND METHODS

Ninety five preterm newborns who were born and admitted to NICU in 2014 were enrolled in this study. Presepsin levels were analyzed in blood samples from umbilical cord; and on day 1, 3, 5 and 7 consecutively. Antenatal characteristics and early pulmonary outcome were explored in this study.

RESULTS

In our study population mean gestational age was 31.92 ± 2.88 (24-36) weeks; mean birth weight was 1753.85 ± 575.24 (610-3110) grams. Thirty seven (42%) newborns had RDS. Infants with RDS had higher presepsin levels starting from umbilical cord blood samples ($p < 0.001$); on day 1 ($p = 0.034$); day 3 ($p = 0.013$), day 7 ($p = 0.003$) compared to infants without RDS. Six patients developed bronchopulmonary dysplasia (BPD), but their presepsin levels seemed similar to the levels obtained in patients without BPD.

CONCLUSION

Higher presepsin levels seen in premature infants in the early days of life may be related to RDS as an indicator of inflammation in this group of infants. Small number of BPD cases had similar presepsin levels with the other patients, however this relationship may deserve further evaluation in larger patient populations.