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Webinar

A new early diagnostic approach of sepsis in newborns with respiratory distress syndrome at the intensive care unit

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Sepsis in newborns with RDS is essential for life-threatening condition and still represents an important cause of mortality and morbidity. The aim of this study was to evaluate the predictive values of procalcitonin (PCT) as an early diagnostic and prognostic biochemical marker for sepsis in newborns with RDS.

Methods:

The study were included 85 newborns with respiratory distress syndrome (RDS) and proven sepsis and admitted in the Intensive Care Unit at the University Children Hospital-Skopje in period of December 2018 till May 2020 y. Procalcitonin levels were measured by using a immunoassay system Vidas based on the ELFA principles

Results:

The newborns with respiratory distress syndrome (RDS) and proven sepsis admitted in the Intensive Care Unit at the University Children

Hospital-Skopje have been divided into two groups. The first group included 32 preterm newborns with RDS and proven sepsis and the second group included 43 term newborns with RDS and proven sepsis. The average gestational age of the preterm newborns with RDS and proven sepsis was $36,04 \pm 3,2$ weeks and the term newborn with RDS and proven sepsis was $36,23 \pm 3,5$ weeks. The average birth weight of the preterm newborns with RDS and proven sepsis was $2290,5 \pm 731,2$ grams, and the term newborn with RDS and proven sepsis was $2785,2 \pm 588,1$ grams. There is statistically significant difference in average PCT between the two groups overtime ($p < 0.05$). There is statistically significant difference in average PCT between the two groups overtime procedure (MV, BCPAP) ($p < 0.05$).

Conclusions:

PCT is promising sepsis markers in preterm newborns with RDS, capable of complementing clinical signs and routine laboratory parameters suggestive of severe infection at the time of ICU admission.