

immunological parameters and cytokine profile in mothers, by the time of delivery, the immune system is dysregulated in newborns with the development of inflammatory status and activation of the immune system and a high risk of severe systemic inflammatory response syndrome.

Keywords: COVID-19, immunothrombosis, pregnancy, myeloperoxidase, vWF, ADAMTS-13, systemic inflammatory response syndrome

PP-040 Contribution of procalcitonin measured in umbilical cord blood in the management of asymptomatic early neonatal bacterial infections

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Objective: Early neonatal bacterial infection (ENBI) remains a major cause of perinatal morbidity and mortality. Any delay in initiating therapy can have a negative impact on prognosis. The search for an optimal early marker in terms of sensitivity and specificity is therefore a topical issue. The aim of our study is to evaluate the contribution of Procalcitonin (PCT) measured in umbilical cord blood in the early diagnosis and management of asymptomatic ENBI.

Methods: This is a prospective evaluative study conducted over a 12-month period. We included all asymptomatic newborns with risk factors for ENBI, born at the Maternity and Neonatology Center of the Farhat Hached Hospital in Sousse, Tunisia. We performed a PCT dosage on umbilical cord blood at birth with a positivity threshold set at 0.5 ng/ml. The newborns included were managed according to a well-established national algorithm for the management of newborns with suspected ENBI. Subsequently, regardless of the PCT value, newborns were classified into three groups: certain, probable, and refuted ENBI according to the algorithm's criteria. Newborns with a diagnosis of certain or probable infection were considered infected.

Results: During the study period, 9685 live births were recorded, and 1235 newborns were suspected of having ENBI, representing 12.7% of live births. The number of asymptomatic newborns at risk of ENBI was 599. Of these, 279 newborns were included in our study. ENBI was diagnosed in 20 cases, representing 1.61% of at-risk situations and 2.06 % of live births. Chorioamnionitis

was the only risk factor statistically correlated with ENBI ($p=0.003$). For a threshold value of 0.5 ng/mL, the sensitivity, specificity, positive predictive value, and negative predictive value of cord PCT were 55%, 96.5%, 55% and 96.5% respectively. The threshold value for PCT found by the receiver operating characteristic curve (ROC curve) was 0.415 ng/mL. For this threshold, we found a sensitivity of 60% and a specificity of 96.5%.

Conclusion: Our work demonstrates that the use of Procalcitonin (PCT) in umbilical cord blood can help in early diagnosing Early Neonatal Bacterial Infection (ENBI). Chorioamnionitis was also among the important factors. The diagnose threshold for PCT was found to be 0.415 ng/mL. More studies are needed to support these findings and enhance neonatal outcomes.

Keywords: Newborn, bacterial infection, Procalcitonin

PP-041 Hypoxic and ischemic encephalopathy: current situation in Tunisia, a descriptive and analytical multicenter study

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Objective: Regardless of the progress made in perinatal medicine, perinatal asphyxia (PNA) remains a major concern in developing countries. A multicenter study conducted in 2014 showed that the overall incidence was about 4‰ live births in Tunisia. The purpose of our research was to establish the occurrence of PNA, identify its causes and evaluate its outcomes based on hypoxic-ischaemic encephalopathy stage, and primary complications resulting from PNA.

Methods: A descriptive and analytical multicenter study was carried out from January to December 2020. It enrolled all full-term neonates admitted to six university hospital neonatology departments for management of PNA in Tunisia. Inclusion criteria were sentinel event during antenatal period or abnormalities on fetal heart rate monitoring, APGAR score<7 at fifth minutes or