"A STUDY OF NUCLEATED RBC IN CORD BLOOD AS A PROGNOSTIC MARKER OF PERINATAL ASPHYXIA"

ABSTRACT

BACKGROUND:

Perinatal asphyxia is one of the leading causes of death in newborns with about 19% of neonatal deaths. In our study we tried to analyse the use of NRBC in umbilical cord blood as an early marker of perinatal asphyxia and to grade the severity of HIE.

AIM:

To investigate the variations in NRBC in cord blood in asphyxiated neonates based on Apgar score and to assess its relationship with both severity and short-term outcome of HIE.

METHOD:

100 asphyxiated newborn babies were divided into two groups (moderate and severe asphyxia) based on their Apgar score at one minute.

The severity of HIE was staged based on Sarnat and Sarnat staging.
RESULTS:

The mean NRBC count / 100 WBC in the severe asphyxia group was 26 ± 12.5 and in 9.6 ±6.6 moderate asphyxia group

The mean NRBCs of mild HIE was 6.2±2.9, moderate HIE was 15.0 ±5.1 and severe HIE was 34.8±10.7.

There was 20% mortality in measuring the short term outcome with statistically significant increase in NRBC count in these patients with a mean of 33.6

CONCLUSION:

We conclude that NRBC count is a useful measure to differentiate between moderate and severe asphyxia and its increase positively correlates with the three different stages of HIE and can also predict the outcome of asphyxiated babies in terms of mortality.

KEYWORDS:

HIE (hypoxic ischemic encephalopathy), NRBC (Nucleated Red Blood Cells)