

Association of maternal and neonatal risk factors with neonatal thrombocytopenia

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Introduction: Neonatal thrombocytopenia is a major cause of morbidity and mortality in NICU's particularly in the sick, preterm, low birth weight neonates. The major cause of thrombocytopenia in neonates is sepsis, birth asphyxia, prematurity, intra-uterine growth retardation and low birth weight. There are various studies which suggest that neonates born to diabetic mothers, mothers with anemia and mothers with Pregnancy Induced Hypertension (PIH) are at increased risk of thrombocytopenia.

Aim and Objectives: To estimate the incidence & severity of neonatal thrombocytopenia & also to determine the neonatal and maternal risk factors associated with it in the neonates admitted in NICU in a tertiary care hospital.

Material and Methods: Prospective, observational study conducted in NICU of Katihar Medical College, Katihar, Bihar. A total of 100 inborn neonates were taken in this study.

Results: 100 neonates, admitted in NICU fulfilling inclusion criteria were studied. Incidence of thrombocytopenia was 53%. In our study 62% neonates were preterm. According to birth weight 72% VLBW & 59 % were LBW neonates developed thrombocytopenia. Mild, Moderate & Severe thrombocytopenia was found to be 43%, 17% & 39% respectively. Depending on time duration, 87% developed early onset thrombocytopenia and 13% developed late onset thrombocytopenia. Prematurity & sepsis were the most common cause, followed by perinatal asphyxia. Most common associated maternal risk factor was found to be Maternal Anemia (Hb<11.0 gm%), followed by Maternal thrombocytopenia and Pregnancy Induced Hypertension.

Conclusions: Prematurity, sepsis and perinatal asphyxia are common causes of neonatal thrombocytopenia and its associated mortality. Maternal Anemia, thrombocytopenia & PIH were found to be an independent risk factor for development of neonatal thrombocytopenia in NICU admitted neonates.