ONCODAILY MEDICAL JOURNAL

abstract

The Prevalence and Associated Risk Factors for Neonatal Thrombocytopenia Among Newborns Admitted to the Neonatal Intensive Care Unit

Hussain AlGhadeer, Rahmah A. Aldhahi

DOI: 10.69690/ODMJ-018-0425-2148

SIOP Asia, 2025, Saudi Arabia

abstract

The Prevalence and Associated Risk Factors for Neonatal Thrombocytopenia Among Newborns Admitted to the Neonatal Intensive Care Unit

Authors: Hussain AlGhadeer, Rahmah A. Aldhahi

Affiliation: Maternity and Children hospital, AlAhsa

DOI: 10.69690/ODMJ-018-0425-2148

Introduction: Thrombocytopenia is the most prevalent hematological condition in neonates that develops in the neonatal intensive care unit (NICU). This set of illnesses is caused by either decreased platelet production due to placental insufficiency, increased platelet breakdown (consumption), or a combination of the two causes. Based on platelet count, it is defined as mild, moderate, or severe thrombocytopenia, with early and late onset. The purpose of this study is to determine the prevalence of thrombocytopenia and the factors that contribute to it in newborns hospitalized in the neonatal critical care unit at the Maternity and Children Hospital in Al Ahsa, Saudi Arabia.

Methodology: This descriptive retrospective cross-sectional study was carried out at the NICU of the Maternity and Children Hospital in Al Ahsa, Saudi Arabia, over the span of one year (August 2022 to August 2023) among hospitalized neonates with thrombocytopenia. Thrombocytopenia is defined as a platelet count of 150,000 or less. These patients were monitored until they recovered or died.

Results: The inclusion criteria were met by a total of 242 newborns with thrombocytopenia. Half of the neonates (57%) were full-term,with Apgar scores greater than 5 at the first (84%) and fifth (93%) minutes, respectively. The great majority of individuals (84%) experienced early-onset thrombocytopenia of mild severity (62%) and were asymptomatic (93%). The majority of the cases resolved spontaneously, with only 21% requiring platelet transfusion. There was a significant relationship discovered between gestational age and the severity of thrombocytopenia, with very preterm infants having moderate to severe thrombocytopenia, as well as birth weight (p=0.001). Furthermore, neonates with severe thrombocytopenia had a considerably higher mortality rate (p=0.001).

Conclusion: The mortality and morbidity of newborns with perinatal risk for neonatal thrombocytopenia can be reduced with timely detection of the cause and development of thrombocytopenia.