

Prevalence and causes of thrombocytopenia in neonates of the neonatal intensive care unit in Boali hospital in Ardabil in 2016-2019

Abstract:

Background: Thrombocytopenia is the most common hematologic disorder in neonates in neonatal intensive care unit(NICU). Intrauterine infections and maternal disorders like hypertension and preeclampsia which are associated with acute or chronic placental insufficiency, are primary causes of early-onset thrombocytopenia. Late-onset thrombocytopenia is usually indicator of severe disease late-onset thrombocytopenia is an indicator of severe disease especially in case of a rapid decline in platelets.

Aim: The aim of this study was to determine the prevalence and causes of thrombocytopenia in NICU of Boali hospital in Ardabil.

Material and Methods: To determine the prevalence of thrombocytopenia in neonates of NICU in Boali hospital of Ardabil, all of the neonates admitted to the NICU from years 1395 through 1397 were evaluated. Gender, gestational age, birth weight, major bleeding , maternal-placental issues, sepsis, blood transplantation and ... were assessed in these patients. Quantitative and qualitative tests were conducted in SPSS software 25. Patients' information was kept private and results published without patient names; in accordance to ethical guidelines.

Results: Overall prevalence of thrombocytopenia in this study was 28.19 percent. The mean age and weight of neonates with thrombocytopenia were 3.60 days and 2123.43 grams respectively. In neonates with thrombocytopenia the mean gestational age was 33.05 weeks. In terms of neonatal factors, 111 neonates had respiratory distress syndrome, 80 neonates had jaundice and 83 neonates had sepsis. Among neonates, 76 patients (50.30 percent) survived their disease and 70 patients expired.

Conclusion: Prevalence of thrombocytopenia in neonates (28.19 percent) is in complete agreement with prior studies. The highest rate of thrombocytopenia has been reported in NICU where 12 to 35 percent of patients have thrombocytopenia. In this study 45 patients (29.80 percent) with thrombocytopenia had a major bleeding. In similar studies only 5-15 percent of severe thrombocytopenic patients had a major bleeding event in NICU.

Key words: Thrombocytopenia - Neonates – Bleeding