

An Observational Analytical Study of Causes, Severity, Risk Factors and Outcome of Thrombocytopenia in a Pediatric Intensive Care Unit

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Abstract

Background and Aims: Thrombocytopenia, commonly encountered in intensive care units, has been shown to be independent predictor of mortality and prolonged hospital stay in critically ill. We conducted a study in Pediatric Intensive Care Unit (PICU) to determine the causes and severity of thrombocytopenia as well as patient outcomes (bleeding and mortality).

Methods: Observational study was conducted in PICU of tertiary care hospital, India after ethics committee approval. Data was derived from routine examinations and investigations. Detailed information about demographic data, clinical data, length of stay (LOS), periodic platelet counts, primary diagnosis, complications, sites of bleeding (if any), use of mechanical ventilation and outcome in PICU were noted.

Results: Occurrence of thrombocytopenia in study population (N= 491) was 60.3%. Mild, moderate, severe and very severe thrombocytopenia was seen in 27%, 32.1%, 34.1% and 6.8% patients respectively. Causes of thrombocytopenia were sepsis (27%), part of primary illness (25.7%), undetermined cause (24.7%), nosocomial sepsis (21.2%) and drugs (1.4%). 237 (48.3%) patients had bleeding during PICU stay. Maximum patients (26.1%) had respiratory system involvement. Risk factors associated with thrombocytopenia were sepsis, shock and mechanical ventilation. Patients with thrombocytopenia had longer PICU and hospital stay. Patients with infectious disease and haematological disorders had statistically significant chances of thrombocytopenia. Shock was significantly associated with increasing severity of thrombocytopenia. Presence of thrombocytopenia and increasing severity were associated with higher mortality.

Conclusions: Thrombocytopenia is a readily available risk marker of mortality and increased PICU stay. Patients having sepsis, shock and mechanical ventilation are at higher risk of developing thrombocytopenia.



Biography:

Dr. Chhaya A. Divecha is currently working as an Assistant Professor, Department of Pediatrics, College of Medicine and Health Sciences, National University of Science and Technology (formerly Oman Medical College), Sohar, Sultanate of Oman.

Speaker Publications:

@article{gupta2019feasibilityob, title={feasibility of breast crawl in a tertiary care teaching institute}, author={a. gupta and brijendra Prasad and S. Khadse and C. Valvi and R. Kulkarni and Uday Rajput and R. Dawre and Priyanka Badjate and A. Kinikar}, journal={Israel Journal of Chemistry}, year={2019}, volume={06}, pages={507-511}}

2nd International Pediatrics, Infectious Diseases and Healthcare Conference, October 26-27, 2020 Webinar

Abstract Citation:

Dr. Chhaya Akshay Divecha, An Observational Analytical Study of Causes, Severity, Risk Factors and Outcome of Thrombocytopenia in a Pediatric Intensive Care Unit, Pediatrics Conference 2020, 2nd International Pediatrics, Infectious Diseases and Healthcare Conference; Webinar, October 26-27, 2020 (<https://pediatrics.infectiousconferences.com/>)