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Platelet transfusion practice in dengue epidemic; Current trends and challenges– An institutional study

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Abstract:

Introduction: Dengue is an arboviral disease with an inherited risk related to the transfusion of blood components and to stop unnecessary transfusion during dengue epidemic a typical criteria has got to be followed.

Aims/Objectives:

1. To record clinical features, laboratory investigations and management of hospitalized seropositive dengue patients.
2. To review the appropriateness of platelet transfusion practices in order to ensure optimal utilization of platelets

Material and Methods: The Retrospective study is being done at RL Jalappa Medical Hospital from April 2015 to June 2019 on seropositive dengue cases.

All serologically confirmed dengue cases who received platelet transfusion were included in the study. Patient's clinical data and platelet counts were obtained from platelet requisition forms and Medical Record Department.

Case definition of Dengue /DHF / DSS applied within the present study was as recommended by WHO4 i.e. Guidelines for platelet transfusion in R. L. Jallappa Hospital Hospital were utilized as the criteria to assess the appropriateness of platelet transfusion adapted from British Committee for Standardization in Hematology (BCSH) has recommended a platelet count 60.

A total of 2705 RDP & 359 SDP were transfused to 1361 patients, of these 1361 patients, 316 bleeding patient received PT & 1045 non bleeding patient received prophylactic platelet transfusion in which 140 patient was requiring actual platelet transfusion & 905 patients were not needed.

Discussion:

In present study total 1361 cases with Dengue infection was transfused platelets (757 males, 604 females). Male predominance was seen similar to that reported in other studies.5,6,7,8

- The maximum number of patients was in the age group of 11-18years i,e pediatric age group predominance was seen, which may be attributed to increased exposure to environment & less knowledge about the safety measures.
- While, study done by Rahul et al. & Yashaswini et al.9 shows adult predominance.

In present study dengue infections included DF(72.5%), DHF(23.4 %), DSS (4.0). In a study by Rahul et.al. 531 dengue positive cases were given platelet transfusion of which 457(86.0%) DF, 19 (6.4%) DHF & 21 (4%) DSS.

- Present study has more number of DHF & less number of DF. The difference may be attributed to better reporting of bleeding status in present study.

In present study 2705 RDPs & 359 SDPs were transfused to 1361 patients. Rahul et al. reported transfusion of 1750 RDPs & 114 SDPs unit of platelets transfused to 531 patients. The higher amounts of platelet transfusion in present study may be because of larger number of bleeding patient (200) with platelet count

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