

HEMATO-ONCOLOGY

THROMBOCYTOPENIA-CASE VIGNETTES***Nita Radhakrishnan******Ravi Shankar**

Abstract: Platelets play a vital role in coagulation and hemostasis. Thrombocytopenia is a common hematological concern in pediatric practice, the etiology of which can vary from mild viral illnesses to critical illnesses. Understanding the pathogenesis of each of these conditions is crucial as decisions such as 'to treat or not to treat' and 'how to treat' are based on this. For the same platelet count, the decision to treat varies based on the pathogenesis. In this article, we explore the common causes of thrombocytopenia in children, their pathogenesis and logic for treatment.

Keywords: Thrombocytopenia, Bone marrow suppression, Immune thrombocytopenia, Approach.

Points to Remember

- *Thrombocytopenia is a vital clue to the diagnosis of many acute and chronic illnesses.*
- *Management of thrombocytopenia is decided based on the underlying etiology.*
- *It is important to focus on the clinical condition of the child than on platelet counts.*
- *Mean platelet volume ranges from 7-9 fL which is expressed in automated hematology analyzers. In conditions where platelets are destroyed, megakaryocytes produce large platelets. In bone marrow pathology, where megakaryopoiesis is affected, usually platelets are of normal size except in certain inherited conditions.*
- *Immature platelet fraction is a measure of reticulated platelets or "reticulocyte" equivalent of platelet series. They are physiologically more active. IPF >8% predicts platelet recovery within the next 24 to 48 hours in dengue infection.*
- *Bone marrow failure syndromes and leukemias should not be missed while evaluating thrombocytopenia.*
- *Inherited causes of thrombocytopenia like Fanconi's syndrome, thrombocytopenia absent radius syndrome, dyskeratois congenita, Wiskott Aldrich syndrome should be suspected when there are suggestive features on physical examination.*

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