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A STUDY OF PLATELET DISORDERS IN HAEMATOLOGICAL DISEASES

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ABSTRACT

Abnormalities in platelet function, platelet count, or storage granule secretion are all potential causes of platelet diseases. Clinical bleeding of different degree characterizes platelet dysfunction abnormalities. In the first evaluation of individuals with mucocutaneous hemorrhage, a platelet count and thorough analysis of the peripheral smear are required. The size of the platelets may be evaluated compared to one another in the peripheral smear. Patients with increased platelet turnover (idiopathic thrombocytopenic purpura) also often have abnormally large platelets. Quantitative (based on platelet count) and qualitative (based on functionality) classifications of platelet diseases follow. In addition, platelet abnormalities can develop in people at any time in their lives. Platelets have flaws of their own, but they can also contribute to the development of coronary atherosclerosis and acute coronary syndrome. The platelet adhesion and aggregation on a collagen or extracellular matrix (ECM) covered plate is measured using the cone and plate (let) analyzer, which was invented by Varon and colleagues. Both platelet-rich plasma (PRP) and whole blood can be tested for thrombin production. Flow cytometry is the gold standard for measuring platelet surface glycoprotein and can reliably identify the absence or reduction of a specific glycoprotein (such as integrin αIIbβ3 in Glanzmann thrombasthenia or GPIb-IX-V in Bernard-Soulier syndrome). The activated partial thromboplastin time (APTT), the prothrombin time (PT), and the von Willebrand factor (VWF) screen are further coagulation assays.