Platelet Aggregation and Activation in Thalassemia Major Patients in Indonesia

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Thromboembolic events and hypercoagulable state have been reported in patients with thalassemia. As platelets play an important role in the pathogenesis of thrombosis, the authors aimed to find the pattern of changes in platelet count, function and activation, and evidence of coagulation activation in patients with thalassemia major in Indonesia. A total of 31 patients with splenectomized and 35 patients with nonsplenectomized thalassemia major were enrolled in this study. Platelet count, platelet aggregation, β-thromboglobulin, and D-dimer levels were measured. All measured parameters were significantly higher in splenectomized than in nonsplenectomized patients. β-thromboglobulin level was increased, but D-dimer level was within normal range. The authors concluded that there was an increase in platelet activation in patients with β-thalassemia major. Platelet activation was higher in splenectomized than in nonsplenectomized patients.

Key Words: platelet aggregation • platelet activation • β-thromboglobulin • thalassemia major • β-thalassemia/HbE

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