Intracranial Blood Flow Velocity in Patients with β-Thalassemia Intermedia Using Transcranial Doppler Sonography: A Case-Control Study.

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Abstract

Introduction. Patients with β-thalassemia intermedia have a higher incidence of thromboembolic events compared to the general population. Previous studies have shown that patients with sickle cell disease, who are also prone to ischemic events, have higher intracranial arterial blood flow velocities measured by transcranial Doppler sonography (TCD). The aim of this study is to evaluate intracranial arterial flow velocities in patients with β-thalassemia intermedia and compare the results with those found in healthy subjects.

Methods. Sixty-four patients with β-thalassemia intermedia and 30 healthy subjects underwent transcranial Doppler sonography. Results. Significantly higher flow velocities were found in intracranial arteries of patients compared to controls (P = 0.001). Previously splenectomized patients with thrombocytosis showed higher flow velocities than nonsplenectomized patients without thrombosis. Conclusion. The increased flow velocities in patients with β-thalassemia intermedia may point to a higher risk of ischemic events. Preventive measures such as blood transfusion or antiplatelet treatment may be beneficial in these patients.