

Original Paper

Validation of HASBLED score in prediction of hemorrhagic complications in patients with brain ischemia and atrial fibrillation under warfarin therapy

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Abstract

Background and Objective: Cardioembolic stroke account for one-fifth of ischemic stroke and atrial fibrillation is the most common underlying cause. Taking an oral anticoagulation (Warfarin) is an effective way of preventing ischemic stroke but bleeding complication is common. This study was carried out to evaluate the validation of HASBLED score in prediction of hemorrhagic complications in patients with brain ischemia and atrial fibrillation under warfarin therapy.

Methods: In this cohort study, 112 patients with non-valvular atrial fibrillation in term of major and minor bleeding complications were followed to the predictive value of HASBLED criteria for one year. Major bleeding complications defined as intracranial bleeding, bleeding leading to hospitalization, drop of hemoglobin of more than 2gr/dl or requiring transfusion. HASBLED criteria were defined as hypertension, abnormality in liver and renal function tests, history of stroke, history of bleeding, large fluctuations in coagulation tests results, age more than 65 years and an Anti-platelet and non steroidal anti-inflammatory drugs and alcohol use one point is awarded to each of the above.

Results: During one year follow up, 10 (9.1%) of patients had major bleeding and 28 (25%) patients had minor bleeding. The risk of major bleeding was significantly related with a history of minor bleeding and HASBLED scores ($P<0.05$). The risk of minor bleeding was significantly related with warfarin toxicity and high INR ($P<0.05$). HASBLED score >3 was associated with the likelihood of major bleeding in future.

Conclusion: Patients with HASBLED score >3 should be cautious in initial stage of taking oral anticoagulant.

Keywords: Cerebral ischemic stroke, Atrial fibrillation, Warfarin, HASBLED score

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