

ELEVATED TROPONIN LEVEL WITH NEGATIVE OUTCOME WAS FOUND IN ISCHEMIC STROKE

B. Hasirci, M. Okay, D. Ađircan, A. Kođer
Medeniyet University, Istanbul, Turkey

Background: Troponin is used in the diagnosis of acute myocardial infarction and its increment is a highly sensitive and specific marker of myocardial necrosis. It is also increased in some acute stroke patients but the reason of high troponin levels in acute stroke is not clear. The aim of this study was to identify the relationships between troponin elevation and stroke.

Methods: From January 2006 / December 2012, this study recruited 868 patients who were admitted to İstanbul Medeniyet University due to acute ischemic stroke within 3 days onset and which were confirmed by diffusion magnetic resonance imaging. A total of 239 patients was finally included and divided into two groups; ischemic stroke and hemorrhagic stroke. All causes which increases the troponin levels (impaired renal function, aort aneurysm, septal wall movement defect, apical hypokinesia, previous myocardial infarction, malignancy, left ventricle segmental movement defect, previous coronary angioplasty or coronary bypass surgery, ejection fraction < %40, pathologic Q waves on admission ECG) were excluded from the study.

Results: Serum level of troponin was higher in hemorrhagic stroke patients, but the difference was not significant ($p>0.005$). Outcomes were assessed by the NIHSS and Rankin scales. Higher troponin levels related to increased NIHSS results in ischemic stroke ($p=0.005$).

Conclusion: Troponin is a highly specific and sensitive marker of myocardial damage and its elevation was associated with severe neurological deficits in acute ischemic stroke. Higher troponin level is an indicator of negative outcome.