ELEVATED TROPOINs PREDICT LONG-TERM CARDIOVASCULAR OUTCOMES IN ACUTE CEREBROVASCULAR ACCIDENT PATIENTS WITHOUT ACUTE CORONARY SYNDROME

Poster Contributions
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Authors: Farhan Raza, Reema Bhatt, Mohamad Alkhouli, Paul Sandhu, Alfred Bove, Temple University Hospital, Philadelphia, PA, USA

Background: Elevation of cardiac troponin occurs in multiple settings without acute coronary syndrome. However, its impact on long-term cardiac outcomes in acute cerebrovascular accident (CVA) remains to be explored.

Methods: We performed a retrospective analysis of 566 patients admitted to Temple University hospital from 2008-2010 for acute CVA. Patients were included if they had a troponin measured in the first 24 hours, had no evidence of acute coronary syndrome and had an echocardiogram performed during that admission. Of 200 patients who met the criteria, we reviewed the baseline patient characteristics, admission labs, EKGs and major adverse cardiovascular events during a follow up period up to sixty months (mean±SD: 20.1±20.6). Patients were characterized into two groups with normal and elevated troponins (above the normal reference interval 0.05-0.40 ng/ml). The primary end point was non-fatal myocardial infarction during follow-up period after discharge. The secondary end points were major adverse cardiac events (MACE) and death from any cause.

Results: Of 200 patients, 17 patients had positive troponins. Baseline characteristics were: age 63.1 ± 13.8, 56.5% males, 64% African Americans, 78% hypertensive, 39.5% diabetics, 22% had history of previous CVA, 7% had atrial fibrillation and 20.5% had history of coronary artery disease, with no statistically significant difference between the two groups. 7 patients (41.2%) in the elevated troponin group and 6 (3.3%) patients in normal troponin group had a non-fatal myocardial infarction (p=0.0001). MACE (41.2% vs 14.2%, p=0.01) and death from any cause (41.2% vs 14.5%, p=0.017) were also significant in the positive troponin group. On logistic regression analysis, positive troponin independently predicted non-fatal MI during follow-up after discharge (p=0.004) while elevated CK-MB (p=0.12), prior history of CAD (p=0.79) or new cardiomyopathy (p = 0.789) did not predict outcomes.

Conclusions: Elevated troponins in non-ACS setting for patients admitted for acute CVA predict worse cardiovascular outcomes. These patients may benefit from closer monitoring and aggressive care after discharge.