

# CLINICAL OUTCOMES OF ACUTE ISCHEMIC STROKE PATIENTS STRATIFIED BY CARDIAC TROPONIN-I: A RETROSPECTIVE ANALYSIS

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## BACKGROUND

Elevation of cardiac troponin (cTn-I) in non-coronary artery disease conditions such as acute ischemic stroke (AIS) portends a poor prognosis. It is unclear if this poor prognosis is secondary to concomitant acute coronary syndrome (ACS), unmasking of high-risk stable coronary artery disease or a different etiology.

## OBJECTIVE

The purpose of this study is to evaluate the utility of elevated cTn-I in predicting occult coronary ischemia using non-invasive investigations in patients who presented with an AIS.

## METHODS

Consecutive patients who presented with an AIS between January and December 2014 were included. cTn-I levels were correlated to findings on standard 12-lead electrocardiogram (ECG), 2D-echocardiogram and myocardial perfusion imaging studies by board-certified cardiologists. The primary endpoint was the presence of reported ischemia on noninvasive testing. Secondary endpoints included length of stay, National Institutes of Health Stroke Scale (NIHSS) and mortality.

## RESULTS

526 AIS registry patients were included in the analysis. Ischemic changes on ECG and wall motion abnormality on 2D-echocardiography were more common in patients with elevated cTn-I compared to patients with normal cTn-I (19.8% vs. 11.6%,  $p = 0.036$  and 34.2% vs. 11.6%,  $p = 0.026$ , respectively). Elevated cTn-I was associated with a longer length of stay and a trend toward higher mortality and NIHSS.

## CONCLUSIONS

cTn-I elevation in AIS is associated with a significantly higher incidence of occult ischemia on noninvasive testing. Collaborative practices between Stroke Neurologists and Cardiologists are called for to further understand the implications of an elevated cTn-I in AIS patients and potential benefits of risk-stratification.