A39 - Troponin level as a predictor of neurological outcome & mortality in acute ischemic strokes

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Introduction:
Cerebrovascular and coronary artery diseases share many of the same risk factors. Cardiac mortality accounts for 20% of deaths and is the second commonest cause of death in the acute stroke population, second only to neurologic deaths as a direct result of the incident stroke.

Methods:
this is a prospective observational study from July 2015 to April 2016 done on 80 adult patients (group I: 50 pts acute ischemic strokes & group II:30 pts as control) in Kafr-Elsheikh general hospital ICU. Inclusion criteria: All patients with acute ischemic stroke while Exclusion criteria: Patients with heart or renal failure/sepsis & septic shock/Ischemic heart disease or Hemorrhagic stroke, full clinical examination & labs including admission quantitative serum cardiac Troponin I ELISA immunoassay, ECG, 2D echocardiography & CT brain on day 0 & 3, Alberta stroke program (ASP) early CT (ASPECT) to predict neurological outcomes and mortality in patient with acute ischemic stroke within 28 days so survivors Vs non-survivors in group 1 were divided to G1A & G1B respectively.

Results:
Dyslipidemia, hypertension, diabetes mellitus were significant comorbidities in all ischemic stroke pts. TLC, Urea, INR and Troponin were significantly higher in case group Vs control group. GCS was found to be lower in non-survivors at day 0 & at 3rd day follow up while ASPECT was significantly lower only at 3rd day follow up. Troponin level was significantly higher in non-survivors G1B, it was also higher in patients who developed convulsion later during their ICU stay & it was significantly inversely correlated to GCS and ASP. Troponin had sensitivity 53% and specificity 87% (ROC curve analysis).

Conclusion:
Troponin level was predictor for mortality in patient with acute ischemic stroke. It is well correlated to GCS and ASP on admission. It was a predictor for occurrence of convulsions later in ICU stay.

References: