Abstract: P1080

Prognostic value of cardiac troponin level in patients presenting with supraventricular tachycardias

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Background: An association between paroxysmal supraventricular tachycardias (PSVT) and elevated cardiac troponin (cTn) has been reported in small studies and case series, even in the absence of significant coronary artery or structural heart disease.

Purpose: We sought to explore the prognostic significance of elevated cTn in patients presenting with PSVT.

Methods and Results: Between Dec 2014 and Jan 2016, a total of 165 patients (60% men, mean age 55± 17 year-old) with an acute episode of regular supraventricular tachyarrhythmia were admitted to the internal medicine emergency department. One hundred and twenty-two patients had at least one serum cTnI value measured. Of those, 56 had a positive result, defined as serum cTnI of more than 0.028 ng/dL. Multivariate adjustment showed that heart rate>150 pbm on admission (OR=3.9; 95% CI 1.1.6-9.5; p<0.003) and history of coronary artery disease (OR=3.4; 95% CI 1.2-10.1; p<0.026) were the only independent predictor of cTn elevation. After mean (±SD) follow-up period of 23 ± 7 months, the combined primary outcome of death, coronary intervention (PCI) or myocardial infarction (MI) occurred in 7 patients (12.5%) out of 56 patients with positive cTn and in zero patients with negative cTn (p=.002). After multivariate adjustment, Cox proportional hazards modeling showed that elevated cTn on admission was independent predictor of adverse outcomes only in patient with known coronary artery disease(CAD) (HR=3.3 , p=0.05).

Conclusion: In patients presenting with PSVT, elevated cTn is associated with increased risk of adverse cardiac outcomes in patients with history of CAD. Serum cTn should be measured selectively, such as in patients with symptoms of ischemic chest pain and a high pretest likelihood of having CAD.