**PREDICTORS OF CORONARY ARTERY DISEASE IN PATIENTS WITH HYPERTENSIVE EMERGENCY WITH ELEVATED CARDIAC BIOMARKERS**

M. Rodriguez Ziccardi, **J. Penalver**, S. Basharat, C. Nwakile

Einstein Medical Center, Philadelphia, PA, USA

**Objectives:** Patients presenting with a hypertensive crisis cannot only have significant myocardial supply-demand mismatch but may also harbor obstructive coronary artery disease (CAD).Our objective is to determine predictive factors for CAD in hypertensive crisis patients with positive cardiac biomarkers.

**Methods**: We studied a cohort of 92 patients admitted to Einstein Medical Center with hypertensive emergency (HE) with elevated troponins (>0.05ng/ml) and that underwent left heart cardiac catheterization. Significant CAD was defined as 70% stenosis on angiogram. Patients with acute sepsis, pulmonary embolism, cardioversion, chest trauma, or recent cardiac procedure were excluded. Echocardiographic parameters for left ventricular hypertrophy, ejection fraction were measured according to guidelines. Standard statistical tests and regression analyses were performed.

**Result:** Only 57 patients met criteria for HE, of these group, 44% were men, 89% were African-American, 3.5% Caucasian and 6% were others. Classical cardiovascular risk factors as diabetes mellitus, smoking, and hyperlipidemia were not statistically different between positive CAD vs no CAD groups. The prevalence of significant CAD in our population was found to be 30% after cardiac catheterization. Troponin >1 was found in19 patients (33%), of which 7 of them had significant CAD. Wall motion abnormalities was found in patients with CAD in 16% of the cases (p=0.56). Left ventricular hypertrophy (LVH) and trop <1 was found 53% of the patients. Level of troponin elevation and LVH did not determine presence of CAD in our population. No significant difference was found in mortality.

**Conclusion:** In our patient cohort there was not association of CAD with hypertensive emergency or presence of LVH, but further studies will be necessary to help determine which parameter can be used to decide which patient with hypertensive emergency and elevated cardiac biomarkers needs further ischemic work up.