**STRESS CARDIOMYOPATHY ASSOCIATED WITH COCAINE USE**

A. Singh, **R. Aurshiya**, S. Pakniyat, J. Shirani

St. Luke's University Health Network, Bethlehem, PA, USA

**Background:** Cocaine use is associated with myocardial infarction, stroke and sudden death particularly in young. Cardiovascular complications of cocaine are largely mediated through catecholamines which are also implicated in pathogenesis of stress cardiomyopathy (SC). We examined trends in hospital admissions and outcomes of adults with SC in active cocaine users (CU).

**Methods:** Search of 2003-2011 Nationwide Inpatient Sample database identified 33,333 admissions for SC of which 95 (0.29%) occurred in CU. Number of admissions for SC in CU remained stable through the study period [OR=1.355 (95% CI=0.492-2.217), p=0.002]. Demographics, clinical characteristics and outcomes of the two groups were compared.

**Results:** CU were younger (47±12-vs-66±13 years), more often male (15%-vs-8%), black (36%-vs-6%) and had lower prevalence of known CAD [29%-vs-40%, p=0.02], peripheral arterial disease (0%-vs-6.2%, p=0.01), hyperlipidemia (26%-vs-48%), chronic kidney disease (0%-vs-5.3%, p=0.02) and hypothyroidism (0%-vs-16.2%) while more often suffered from chronic congestive heart failure (5.2%-vs-1.3%), valvular disease, (5.2%-vs-1.9%, p=0.02), liver disease (5.2%-vs-1.3%), psychosis (20%-vs-3.9%), alcoholism (20%-vs-2.8%), tobacco use (64%-vs-28.8%) and amphetamine abuse (5.2%-vs-0.1%) [all other p<0.001)]. The incidence of hypertension, diabetes and obesity were similar between the two groups. CU were more often uninsured (15%-vs-4%) or insured through Medicaid (40%-vs-5%) and belonged to the lowest income quartile (32%-vs-23%) [all p<0.001]. CU were more often admitted to large (80%-vs-70%) teaching (76%-vs-64%) hospitals [all p<0.001]. Midwestern and Western US accounted for 56% of SC admissions related to cocaine use. Overall cardiovascular complications were rare in both groups (and similar), but CU more often suffered from ventricular tachycardia (15.4%-vs-2.8%).

**Conclusions:** Cocaine use is linked to SC in a distinct cohort of younger African American individuals and is associated with significant ventricular arrhythmias during the hospitalization. Although overall cardiovascular mortality is low, any major adverse event occurred in ~26% of CU.