**IMPACT OF FAMILY HISTORY OF CORONARY ARTERY DISEASE ON IN-HOSPITAL CLINICAL OUTCOMES IN ST-SEGMENT MYOCARDIAL INFARCTION**

**U. Ashraf**, A. Sharma, A. Nanda, J. Kelly, V. Chinta, I. Pour-Ghaz, R. Khouzam

University of Tennessee, Memphis, TN, USA

**Background:** Family history of coronary artery disease (FhxCAD) has long been known to be an independent risk factor for development of coronary artery disease as well as the occurrence of acute coronary syndromes. Estimates derived from multiple studies show ranges varying from a 40 to 60% increase incidence in most cohorts. This study aims to evaluate the impact of FhxCAD on the in-hospital outcomes post-ST elevation Myocardial Infarction (STEMI).

**Method:** The Nationwide Inpatient Sample was used to retrospectively compare the all cause in-hospital mortality in patients with STEMI with and without a FhxCAD as the primary outcome measure. Secondary outcomes that were also compared included acute cerebrovascular events, cardiogenic shock, and use of intra-aortic balloon pump (IABP).

**Results:** A total of 2,123,492 STEMI admissions were identified, from these 7.4% (n=158,079) patients had a FHxCAD and 92.6% (n=1,965,413) had no FHxCAD. Analysis showed that the FHxCAD group had a lower in-hospital mortality [1.4% vs. 8.1%; adjusted odds ratio (OR): 0.42, 95% confidence interval (CI): 0.41-0.44; P<0.001] when compared to those without a FhxCAD. Patients with FhxCAD also had decreased rates of acute cerebrovascular events, cardiogenic shock, and use of IABP during hospitalization [Adjusted OR and 95% confidence intervals (CI): 0.54(0.50-0.59); OR 0.61(0.60-0.63); OR 0.81 (0.79-0.83), respectively].

**Conclusion:**Our study demonstrated a strong correlation between patients with a FhxCAD with STEMI and a decreased in-hospital mortality as well as other adverse events. Possibilities for this difference could be earlier presentation, higher rates of medication compliance, earlier diagnosis, greater likelihood of cardiac catheterization, or even earlier age at MI with a higher degree of myocardial reserve. Further studies need to be performed to analyze what factors have led to this mortality difference so that it can be extrapolated to the general population.