**A HIDDEN CASE OF HYPERTROPHIC OBSTRUCTIVE CARDIOMYOPATHY RELATED SUDDEN CARDIAC ARREST UNDER THE GUISE OF ACUTE ST ELEVATION MYOCARDIAL INFARCTION IN AN ELDERLY MALE**

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**Introduction:**Sudden cardiac death (SCD) is defined as an unexpected, natural death within 1 hour of symptom onset which cannot be due to a non-cardiac cause. The annual incidence in the United States ranges from 180-450,000/year. Of the many potential causes of SCD, coronary artery disease is the most common and is attributed to 80% of SCD.

**Case:** A 61-year-old male collapsed from sudden cardiac arrest with subsequent ROSC after approximately 15 minutes of down time. Lab work was significant for a Troponin-I of 0.46ng/ml, ECG with ST elevations in aVR and V1, ST depressions in V3-6, Q waves in V2. He was taken for percutaneous intervention which revealed 99% lesion at the 1stdiagonal branch of the left anterior descending coronary artery which was reopened with placement of one drug eluting stent. A transthoracic echocardiogram revealed severe upper septal thickening (26mm) with significant increase in left ventricle outflow tract (LVOT) velocity to 4.14 m/s. A cardiac MRI showed marked diffuse left ventricular hypertrophy, most pronounced in the basal portion of the septum with LVOT obstruction. Focal areas of more intense gallium enhancement, including subendocardium in the apical portion of the anteroseptal wall with overall percentage of enhanced volume at 15-25%. These findings are consistent with hypertrophic obstructive cardiomyopathy (HCM), the real cause of his arrest.

**Discussion:** Sudden cardiac arrest is a disease process of fatal ventricular arrhythmia. HCM is defined as unexplained, asymmetric increased left ventricle mass appreciated as a thickened wall greater than or equal to 0.15 mm during diastole, especially the interventricular septum, without another cause. The purpose of this case report is to serve as a reminder and correct the preconceived notion that HCM is a rare disease which only affects young athletes. We hope that by readings this, HCM will have a higher visibility in medical consciousness and in return will enhance the index of suspicion and frequency of diagnosis and initiation of primary prophylaxis and screening of family members and general populations so that the we can reduce the rate of HCM-related mortality.