Abstract Form

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Project Title:	APICAL HYPERTROPHIC CARDIOMYOPATHY MIMICKING AS MYOCARDIAL INFARCTION

Research Category (please check one):

☐	**Original Research**	☒	**Clinical Vignette**	☐	**Quality Improvement**	☐	**Medical Education Innovation**

Abstract

Purpose: Hypertrophic cardiomyopathy (HCM) is known to have a wide spectrum of patterns and this care will highlight a rare form of HCM called apical hypertrophic cardiomyopathy (ApHCM) which can mimic myocardial infarction.

Methods: Retrospective Study was conducted. Ethical approval was obtained from the IRB at Kern Medical (Study #21095). A single patient case report was conducted.

Summary:
A 46-year-old Punjabi male with hypertension presented to an outside hospital with chest pain and was to have elevated troponin levels of 0.31 ng/mL. Nuclear Lexiscan stress test at that time showed a "reversible defect of the cardiac apex suggestive of ischemia", cardiac catheterization was negative, and transthoracic echocardiogram (TTE) showed preserved left ventricular function and mild mitral regurgitation. Troponin trended down to 0.23 ng/mL and the patient was discharged. The patient then comes to the medical clinic to establish care and was complaining of palpitations that are intermittent and last about 2-3 minutes per episode. The patient reports that the episodes are initiated by physical activity such as walking about 100 feet and alleviated with rest. He denied any chest pain or shortness of breath. Positive history of heavy alcohol use and drinking 6-8 alcoholic beverages 2-3 times a week. An electrocardiogram (ECG) done in the clinic showed left ventricular hypertrophy and abnormal T waves in inferior leads. Repeat TTE showed that left ventricular ejection fraction is estimated at >65% and apical to mild LV is unusually thickened which is consistent with ApHCM. The patient was then referred to the cardiology clinic for further management. The patient will be treated with an appropriate beta-blocker and cardiac monitoring for further risk stratification.

Conclusion:
There are many different spectrums to hypertrophic cardiomyopathy with the most common form being asymmetric septal hypertrophy (ASH). There is a rare form called ApHCM which is more prevalent in the Asian population (25%) than in non-Asians (1% to 10%). Compared to the ASH, it is more sporadic and associated with more atrial fibrillation (AF) and different risk factors for sudden cardiac death (SCD). There are no current guideline recommendations for diagnosis, screening, or patient risk stratification available for ApHCM. This case illustrates the importance of understanding and diagnosing patients with ApHCM since patient symptoms mimicked a myocardial infarction. An accurate and timely diagnosis may highly improve the clinical outcome and overall well-being of the patient.