Unusual Case of ST Elevation Myocardial Infarction and Ventricular Tachycardia in A Patient with Kawasaki Disease

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Background:

Kawasaki disease (KD) an acute self-limiting vasculitis of small - medium sized vessels. It is usually associated with coronary artery aneurysm formation and thrombotic occlusion. Few cases of ST elevation MI (STEMI) and ventricular tachycardia (VT) were reported in patients with KD.

Case: An 18 y.o male with hx of KD, who lost follow up for > 10 years, presented with out of hospital cardiac arrest while playing volleyball. Initial ECG showed polymorphic VT, and with successful CPR and DC shocks, ROSC was achieved after 15 mins. Repeated ECG showed anterolateral wall STEMI with initial trop of 700 pg/ml. Renal function and inflammatory markers were normal. Echocardiography showed EF 25 % with severe global hypokinesis of LV walls.

Decision-making: Patient was taken to cath lab emergently and amiodarone drip was started. LHC showed chronic total occlusion of LAD with right to left collaterals and normal LCx and RCA. PCI to LAD was attempted but unsuccessful and the decision was to treat medically. Cardiac CTA showed calcified plaques of proximal – mid LAD with thread like lumen of distal LAD. Thoracic and abdominal CTA showed no evidence of vasculitis. MRI brain with normal. Both autoimmune workup and thrombophilia work up were -ve. ICD was placed for secondary prevention. Echocardiography was repeated three days and showed EF of 50 % with akinetic apical inferior segment.

Conclusion: Kawasaki disease can present with STEMI and VT without any obvious thrombotic occlusion or active vasculitis. This patient was challenging as his LAD was not suitable for stents or grafts!