Mediastinal mass presenting as an ST-elevation MI

Lopez O., Lora G., Ceron Castro, C.

University of Texas at Rio Grande Valley, Doctor's Hospital at Renaissance

Background: MINOCA is defined as a clinical syndrome in which there is myocardial ischemia in the setting of normal coronary arteries. Different causes include coronary spasms, SCAD, or external compression, e.g., by a mediastinal mass. CT or MRI would show presence of the mass, deferring any need for coronary angiography.

Case: The patient is a 57-year-old lady with a past medical history of hypertension who presented to the emergency department complaining of shortness of breath associated with chest pain. Upon evaluation her vitals were BP 126/76, HR 94, RR 18, O2 98% on room air. Physical exam was unremarkable. Troponin peaked at 0.62. Chest x-ray showed no acute findings. EKG showed ST-elevation MI in leads V1-V3. She was immediately taken to the catheterization lab and was found to have normal coronary arteries without any evidence of coronary artery disease. CT angiography was done to rule out pulmonary embolism which showed an anterior mediastinal mass with invasion to the anterior cardiac wall consistent with malignancy. Interventional radiology was consulted, and she underwent CT guided biopsy of the mass. The patient remained stable with no further symptomatology and was discharged home. Biopsy results showed mass consistent with diffuse large B-cell lymphoma, activated B-cell type, with an exceedingly high proliferative fraction. She was started on chemotherapy regimen.

Discussion: Primary mediastinal B-cell lymphomas are aggressive entities that can expand around the mediastinum and compromise the heart. Due to its cardiac invasion patients can present with an ACS picture. Coronary angiography would show no abnormalities. Aggressive chemotherapy regimen is pertinent in these patients due to the risk of myocardial rupture. Our case highlights the importance of viewing STEMI as a clinical syndrome with different etiologies and not just an EKG finding.