**ROLE OF CONTRAST ENHANCED ECHOCARDIOGRAPHY IN PROVIDING LIFE SAVING DIAGNOSIS AFTER ACUTE STEMI**

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A 65-year-old gentleman with a 60 pack-year smoking history presented to the emergency room with persistent anterior chest discomfort of two days duration, associated with nausea, dyspnea, and orthopnea. Initial ECG showed ST elevation, Q-waves, and inverted T-waves in the inferior leads.

Coronary angiography revealed total occlusion of the distal right coronary artery (RCA) and posterior descending artery (PDA) by thrombus. Thrombectomy was performed, opening the proximal and mid- PDA. A drug-eluting stent was deployed in the mid-RCA. The distal PDA and the right posterolateral artery remained totally occluded after percutaneous coronary intervention. The final angiogram showed TIMI-II flow consistent with distal no-reflow phenomenon.

Following catheterization, the patient was admitted to the Cardiac Intensive Care Unit where he reported persistent chest pain. Repeat ECG revealed diffuse ST elevation consistent with pericarditis, which was treated with colchicine. He developed complete heart block which later converted to atrial fibrillation, prompting initiation of heparin. By hospital day three, he had recurrent chest pain and hypotension. Urgent TTE revealed an enlarging pericardial effusion with echogenic components, consistent with coagulum. Repeat TTE with micro-bubble contrast demonstrated delayed appearance of contrast in the posterolateral pericardial space confirming the diagnosis of myocardial rupture.

He was evaluated by cardiovascular surgery and taken urgently for repair. Intraoperative transesophageal echocardiogram confirmed a narrow communication from the basal inferior left ventricular wall to the pericardial space. Blood and clot were evacuated from the pericardium. No active bleeding was identified during the procedure. An epicardial patch was placed and secured with BioGlue.

In this case, high clinical suspicion and use of contrast-enhanced echocardiography led to early detection and treatment of an often fatal complication. Confirming the diagnosis prior to complete rupture allowed for off pump, low risk surgery with epicardial patch.