

Intramyocardial Hematoma Post Myocardial Infarction (MI)

Complimentary Role of Cardiac Imaging



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A 64 year old male patient was referred to our tertiary center as a case of late presentation of anterior ST segment elevation (STEMI) >48 hr. with no more chest pain. He is known to have hypertension (HTN), diabetes mellitus (DM) and old cerebrovascular accident (CVA) (ischemic) 1year ago with no residual deficit. The patient was haemodynamically stable and clinically was not in failure. Electrocardiography revealed sinus tachycardia, Q waves and residual ST segment elevation in V1-V4. (Figure 1)

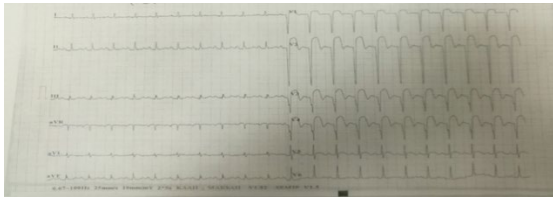


Figure 1

Diagnostic procedures included cardiac catheterization through Right Radial Artery Approach, which showed left main coronary artery (LMCA): Normal, left anterior descending (LAD): Proximal 40%, Mid 80% long segment, Distal small caliber diffuse disease, left circumflex (LCX): Proximal ectasia, distal small caliber, obtuse marginal (OM): Proximal 60% and right coronary artery (RCA): Proximal 40%, Distal mild diffuse disease. (Figure 2)

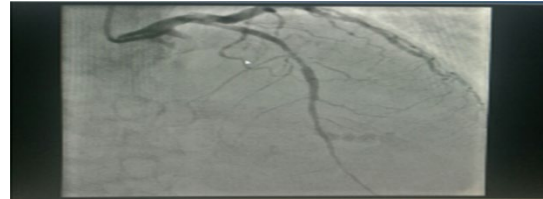
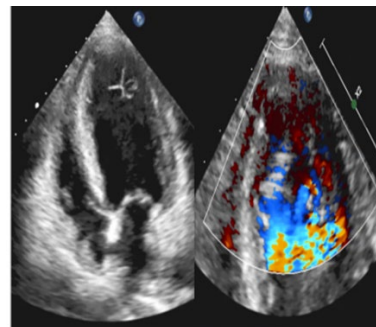
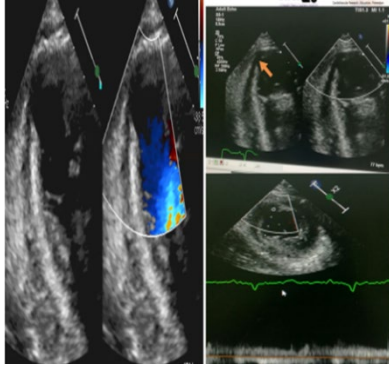


Figure 2

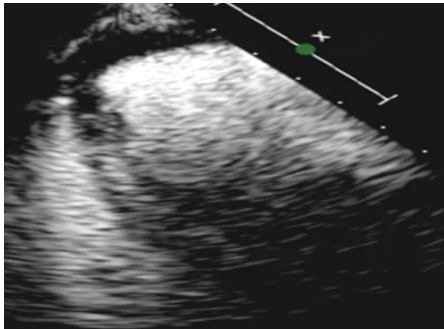
Echocardiography was performed, showed a severely depressed LV ejection fraction (LVEF) of 20 %, as well as extensive apical, mid anteroseptal, and mid anterior wall akinesia. Spontaneous contrast is noted. There is LV apical outpouching with No evidence of ventricular septal rupture (VSR). The right ventricle is grossly normal size. The right ventricular systolic function is moderately reduced. No significant valvular lesion. There is no pericardial effusion. Contrast Echo was done and showed LV apical outpouching with No evidence of VSR and The interventricular septum (IVS) showed intra myocardial contrast uptake suggesting Intramyocardial hematoma (Figures 3A, 3B AND 3C).



Figures 3A



Figures 3B



Figures 3C

Cardiac magnetic resonance imaging showed Ischemic cardiomyopathy, NO apical LV thrombus, a small impending pseudoaneurysm in apical inferio segment is noted and Intramyocardial hematoma is noted in the septal wall. LAD territory: non-viable, LCX territory: viable and RCA: territory: viable.

Long TI (600) showed hypo intense in the septal wall (Figure 4) and LGE TI (300) showed near transmural late enhancement in septal wall (non-viable) (Figure 5).

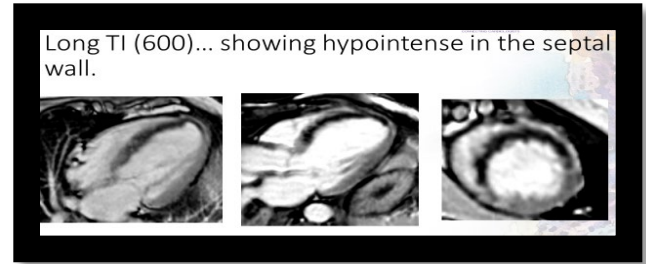


Figure 4

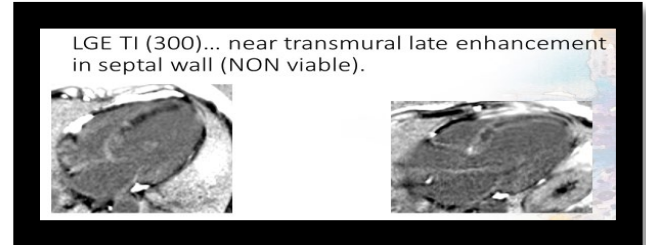


Figure 5

The case was managed conservatively after discussion with our cardiac surgeons team with regular follow up with Echocardiography

Upon Echocardiography follow up, we noticed that the septum became thinner and brighter with progressive diltation of left ventricular (LV) cavity size and decrease EF and that is going with LV adverse remodeling (Figure 6)

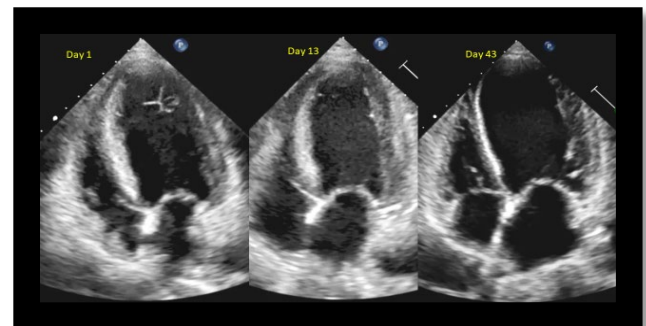


Figure 6