Management of LV Thrombus After Primary PCI for STEMI

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The formation of thrombi post myocardial infarction is well recognized, especially in acute anterior or apical myocardial infarction. Left ventricular (LV) regional wall akinesia and dyskinesia resulting in blood stasis, prolonged ischemia leading to subendocardial tissue injury with inflammatory changes and a hypercoagulable state, Virchow's triad, resulting in LV thrombus formation. Nowadays, the reported incidence is lower than previous reports, probably due to ₩more aggressive anticoagulation therapies in the acute phase, smaller infarctions, and improved LV remodelling. Timing of LV thrombus assessment is crucial, as assessment too soon after the onset of myocardial infarction will miss LV thrombus formation. Transthoracic echocardiography is most often used for assessing LV thrombus. However, it is estimated that 10-46% of echocardiograms are inconclusive. Delay enhancement cardiac magnetic resonance imaging (CMR) is nowadays considered the gold standard. Cine-CMR, transoesophageal echocardiography, radionuclide angiography, and CT seem less appropriate for LV thrombus detection. Conditions that increase the risk of systemic embolization in patients with LV thrombus are: (1) severe congestive heart failure, (2) diffuse LV dilatation and systolic dysfunction, (3) previous embolization, (4) advanced age, and (5) presence of LV protruding or mobile thrombi. Some observational studies conducted in the prethrombolytic and thrombolytic eras have provided support for the hypothesis that anticoagulation reduces the risk of embolization .