Incidental chronic LV thrombus; a dreaded complication of anterior MI

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Background

Left ventricular thrombus may develop after acute myocardial infarction and occurs most often with a large STEMI. The use of reperfusion therapy and fibrinolytics has dramatically reduced the incidence. Epidemiologic data suggest the incidence of LV thrombus is as high as 25% in patients with anterior MI. Risk of embolization has been reported up to 15% in patients without anticoagulation.

Case presentation:

70 y/o man with history of coronary artery disease with remote LAD stent placed over 17 years ago presents to the office as a new patient for evaluation of exertional shortness of breath and chest pain. Upon review of patient's history an echocardiogram and nuclear stress test where ordered. 2D echocardiogram showed impaired systolic dysfunction with EF of 35%, hypokinetic left anterior wall, and akinesis of apical anterior wall. A 2 x 3 cm regular with echodense borders left apical thrombus was identified with no protrusion nor mobility. Stress test showed nonreversible apical ischemia. Left heart catheterization was performed showing patent LAD stent with only mild CAD present. Due to chronicity without complications and echocardiographic characteristics along with patient discussion the decision was made not to initiate anticoagulation at this point.

Conclusion:

LV thrombus is a complication of anterior and apical MI that increases the risk for MACE and stroke. Guidelines recommend oral anticoagulation of at least 3 months upon diagnosis but there is no clear recommendation for chronic stable cases. Echocardiographic characteristics can help guide the decision for anticoagulation initiation until further protocols are developed.