



AC048

Adult Cardiology & Clinical Cardiovascular Medicine • Poster Presentation

APICAL THROMBUS COMPLICATING ANTEROLATERAL MYOCARDIAL INFARCTION: A CASE REPORT

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Background: Left ventricular (LV) apical thrombus is a recognized complication of extensive anterior or anterolateral myocardial infarction (MI), arising from apical akinesis, reduced ejection fraction, and hypercoagulability. Despite advances in reperfusion therapy, it remains clinically important due to the risk of systemic embolization, particularly ischemic stroke.

Methods: We report a single case describing the clinical presentation, laboratory findings, and echocardiographic evaluation used to diagnose LV apical thrombus in a patient with anterolateral MI.

Results: A 52-year-old hypertensive man with a prior stroke (residual dysarthria and amnesia) presented with a one-week history of severe retrosternal chest pain and dyspnea. He was tachycardic (114 bpm), hypotensive (88/57 mmHg), and mildly hypoxic (SpO₂ 94%). Labs showed markedly elevated D-dimer (>10 mg/L), NT-proBNP (1531.5 pg/mL), and CRP (>200 mg/dL), with troponin I below the diagnostic threshold. Echocardiography revealed a dilated left atrium, moderately impaired ejection fraction (40-45%), pseudonormal LV filling, and akinesis of the apical anterior, lateral, septal, and inferior segments, with a large apical thrombus (22 × 25 mm). Lower limb Doppler excluded deep vein thrombosis. Extensive apical dysfunction combined with pre-existing cerebrovascular disease placed this patient at high risk for recurrent embolic events.

Conclusion: This case underscores the need for a high index of suspicion for LV thrombus in patients with anterolateral MI, especially those with apical akinesis, depressed ejection fraction, and prior cerebrovascular disease. Early echocardiographic detection and individualized anticoagulation are key to reducing systemic embolism and stroke risk.

Keywords: Left ventricular thrombus, Anterolateral myocardial infarction, Echocardiography, Ischemic stroke, Anticoagulation.