VENTRICULAR THROMBUS

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EPIDEMIOLOGY

- Following MI: 4% in PCI era, up to 20% in pre-PCI era
  - One observational study showed an incidence of 15% following STEMI with PCI
- End-stage cardiomyopathy: 11-44% prevalence

![LV Thrombus Etiology Over Time at BWH](image)

Figure from source

DIAGNOSIS

- MRI with contrast: 88% sensitive, 99% specific
- Transthoracic echocardiogram: 23% sensitive, 96% specific
- Transesophageal echocardiogram: 40% sensitive, 96% specific

RISK OF FACTORS

- Case-control study of 144 patients being evaluated for heart transplant, 28 with LV thrombus, 116 without
  - Mean follow-up: 27.6 months
  - Risk factors identified for thrombus and subsequent thromboembolism
    - Left ventricular internal diastolic dimension (LVIDD) > 60 mm
    - Lower EF
    - Apical aneurysm
    - Ischemic etiology of heart failure
- High risk features: recent MI, recent systemic embolus, and thrombus protrusion or mobility.
- Low-risk features: remote MI, absence of systemic embolus, mural or sessile thrombus without mobility
- Very low-risk features: Mural thrombus without protrusion or mobility within aneurysm

MANAGEMENT: Goal is to prevent systemic embolization

  - Re-image in 3 months
- Thrombolytics: May increase risk of embolic events and is not recommended.
- Surgical embolectomy: Should be reserved for recurrent embolic events when accompanied by other indicated cardiac surgery.
- Practice Guidelines

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<td>Anticoagulant therapy may be considered for patients with STEMI and anterior apical akines...</td>
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Treatment with VKA therapy (target INR, 2.5; range, 2.0–3.0) for 3 months is recommended in most patients with ischemic stroke or TIA in the setting of acute MI complicated by LV mural thrombus formation identified by echocardiography or another imaging modality.

Treatment with VKA therapy (target INR, 2.5; range, 2.0–3.0) for 3 months may be considered in patients with ischemic stroke or TIA in the setting of acute anterior STEMI without demonstrable LV mural thrombus formation but with anterior apical akinesis or dyskinesis identified by echocardiography or other imaging modality.

In patients with ischemic stroke or TIA in the setting of acute MI complicated by LV mural thrombus formation or anterior or apical wall-motion abnormalities with an LVEF < 40% who are intolerant to VKA therapy because of nonhemorrhagic adverse events, treatment with LMWH, dabigatran, rivaroxaban, or apixaban for 3 months may be considered as an alternative to VKA therapy for prevention of recurrent CVA.

**SOURCES**


