Incidence of Left Ventricular Thrombus and Embolic Phenomena in Patients with Acute Myocardial Infarction and Severe Left Ventricular Dysfunction

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Background and objectives:

We aimed to assess the incidence and evolution of new left ventricular (LV) thrombi (LVT) in patients with LV systolic dysfunction after acute anterior myocardial infarction (ant-MI) who had been discharged on dual antiplatelet therapy and the incidence of systemic embolism.

Methods:

We prospectively included 202 consecutive patients with LV ejection fraction (LVEF) ≤35% or apical aneurysms or large infarctions with LVEF ≤40%, with no LVT at the first transthoracic echocardiography (TTE) performed before hospital discharge. A second TTE was performed at 30 days and a third one at 3 months. All TTE studies were prespecified to assess LVT. Patients were screened for the development of systemic embolisms.

Results:

Patients (males 93%; mean age 55.2±6.4 years; mean LVEF 29.5%±5.0%) were included at a median of 1.5 days. At 30 days TTE, LVT was detected among 12 (5.9%) patients, and triple anticoagulant therapy was prescribed for them. At 3 months TTE, 7 patients had the LVT disappeared, 5 patients still had LVT, and none got new LVT. No patients got systemic embolisms.

Conclusion:

In contemporary practice, the incidence of new LVT in patients with post-ante-MI severe LV dysfunction, using prespecified TTE criteria, is not very high and carries a low risk for systemic embolism.