

### **Incidence of left ventricular thrombus (LVT) in patients with anterior infarct undergoing primary PCI**

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The prevalence of left ventricular (LV) thrombus in STEMI pts ranges from 5-20%. As primary PCI is expected to reduce LV impairment it may also reduce the incidence of LVT.

Aim: To determine the incidence of LVT in pts with anterior STEMI undergoing primary PCI, compared with pts not undergoing primary PCI.

Methods: Between 1995-2008, 1390 pts were admitted with anterior STEMI. Of these, 742 underwent echo-doppler studies during hospitalization. LV dysfunction was divided into 6 subgroups: none, mild, mild to moderate, moderate, moderate to severe and severe. Primary PCI was performed in 348 pts and the remaining were treated conservatively or with deferred intervention. Until 2003 most pts were treated medically while today all acutely presenting STEMI pts undergo primary PCI, unless a contraindication exists.

Results: LVT was detected in 89 pts (12%). There was a low frequency (3.7%) of LVT in pts with no or mild LV dysfunction (LVD), while in pts with mild to moderate LVD or worse frequency of LVT was 17.6%. ( $p < 0.001$ )

		LVD and Thrombus with and without PCI		
LV Function	Total (n)	Thrombus n (%)	Primary PCI n (%)	No Primary PCI n (%)
Normal	84	1 (1.2)	56 (14.2)	27 (7.8)
Mild	210	9 (4.3)	98 (24.9)	112 (32.2)
Mild-Moderate	136	31 (22.8)	57 (14.5)	79 (22.7)
Moderate	264	41 (15.5)	151 (38.3)	113 (32.5)
Moderate-Severe	21	3 (14.3)	13 (3.3)	8 (2.3)
Severe	28	4 (14.3)	19 (4.8)	9 (2.6)
Total	742	89 (12.0)	394	348

There was no difference in LV function between pts who did or did not undergo primary PCI. Primary PCI pts had prevalence of thrombus 14.4% in pts undergoing primary PCI versus 9.9% ( $p=0.06$ ) in those not undergoing primary PCI.

Conclusions: LVT is frequent in pts with anterior STEMI undergoing PCI with a significantly higher incidence in pts with worse than mildly impaired LV function. Pts undergoing primary PCI did not have reduced frequency of LVT. Echo should be performed in all anterior STEMI pts during hospitalization.