

Ischemic Mitral Regurgitation Dynamics in Patients with STEMI Undergoing Primary Percutaneous Coronary Intervention

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Background: Ischemic mitral regurgitation (IMR) has been associated with poor prognosis, but so far the dynamics of this entity has not been fully defined.

Aim: To determine non invasively the timing of appearance, natural history and predictors of IMR dynamics among pts with STEMI undergoing PPCI

Material & Methods Echo-Doppler study was performed in 100 consecutive pts with STEMI, eligible for PPCI. The presence and severity of IMR including LVEF% were evaluated on admission, 24 hour, 30 and 180 days post procedure. Before PPCI 27/100 (27 %) pts showed IMR. The dynamics of IMR during follow up are presented.

Results:

	MR Dynamics			P values *
	No change (N=11)	Deterioration (N=9)	Decrease (N=7)	
Age	57.6±6.3	60.9±15.3	59.1±9.8	.71
Gender (% male)	9 (81.2)	8 (88.9)	5 (71.4)	.58
Anterior MI (%)	5 (45.5)	7 (77.8)	3 (42.9)	.20
Diabetes Mellitus (%)	3 (27.3)	5 (55.6)	3 (42.9)	.36
Hypertension (%)	11 (100)	9 (100)	7 (100)	1.00
Prior MI's (%)	2 (18.2)	1 (11.1)	1 (14.3)	1.00
Timi flow: end PPCI: 0-I	1 (9.1)	0 (0.0)	0 (0.0)	
II	1 (9.1)	3 (33.3)	0 (0.0)	
III	9 (81.8)	6 (66.7)	7 (100.0)	1.00
LVEF (%) before PPCI	45.36±6.00	39.89±3.48	42.85±5.67	.03
24 hr post PPCI	44.00±6.97	40.44±6.40	44.00±4.76	.26
F/U 180 days	56.00±10.10	43.11±7.11	50.86±4.52	.005
LVEF (%Δ) During F/U	24.9±24.5	8.0±14.7	20.2±17.4	.09

* Deterioration Vs other groups

Conclusions: Low ejection fraction at presentation with no improvement during f/u found to be a significant predictor for IMR deterioration.