

Assessment of The Degree of Ischemic Mitral Valve Incompetence Before and After Percutaneous Coronary Intervention

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OBJECTIVE:

The aim was to study the effect of successful and total revascularization by percutaneous coronary intervention (PCI) on the degree of ischemic mitral regurgitation in patients with coronary artery disease.

METHODS:

90 patients diagnosed as CAD with ischemic MR & subjected for percutaneous coronary intervention (PCI). Assessment of LV function and dimensions by echocardiography and assessment the degree of mitral regurgitation by jet area before and after PCI

RESULTS:

90 patients diagnosed as CAD with ischemic MR subjected to PCI. After successful total revascularization, IMR was improved in 65 patients (72%). in 20 patients (22.2%) the IMR was completely disappeared, 39 patients (43.3%) had mild MR while 4 patients (4.4%) had severe MR post PCI. In patients

with acute STEMI 35 patients 27 of them (77%) improved after PCI and in patients with chronic myocardial ischemia 25 patients 18 (72%) of them improved after PCI. Mean MR jet area decreased from $(5.3 \pm 2.2 \text{ cm}^2)$ to $(3.2 \pm 2.5 \text{ cm}^2)$, ($p \text{ value} < 0.05$) after PCI, and this improvement in MR was evident in all degrees of MR. There was a significant improvement in the degree of MR among non-diabetic patients in comparison with diabetic patients

CONCLUSION:

Successful total coronary revascularization using percutaneous coronary intervention (PCI) may improve ischemic mitral regurgitation whether mild, moderate or severe degree. Improvement in ischemic MR may be more expected after PCI of totally occluded vessel and in non-diabetic patients.

KEYWORDS:

Ischemic mitral incompetence, Coronary artery disease, PCI