Course of Mitral Regurgitation and Relation to Dyssynchrony in Acute Inferior Myocardial Infarction

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Mitral regurgitation (MR) worsens prognosis in the setting of acute myocardial infarction (AMI). MR during AMI was reduced by fibrinolytic treatment. MR is related to ventricular dyssynchrony and is reduced by resynchronization therapy.

Aim: Serial evaluation of MR severity, QRS width and their relation in patients with inferior AMI and comparison between fibrinolysis and primary angioplasty (PPCI).

Methods: Seventy one patients with inferior AMI were evaluated, 35 of them had primary angioplasty. Doppler echocardiography with evaluation of MR severity, QRS width from surface 12-lead electrocardiography were measured at admission, 3 days later and pre-discharge. Comparison of trends of change in MR and QRS width were performed.

Results: Nine of 11 patients who had reduction in severity of MR were in the PPCI group. None of the PPCI patients had significant MR at discharge while 3 of the fibrinolysis group had MR grade 3. Patients with reduction in MR grade had a decrease in QRS width at discharge, $p<0.05$.

Conclusions: Most of the patients with inferior AMI who had decrease in MR severity were treated by PPCI. None the PPCI patients had significant MR at discharged while patients who were treated with fibrinolysis had less reduction MR severity and some had significant MR at discharge. Reduction of MR severity tended to be associated with reduction of QRS width.