

Septal Myectomy in HOCM Patients: Mechanisms of Residual Mitral Regurgitation

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Background:

Controversy exists as to whether myectomy alone is sufficient in eliminating mitral regurgitation (MR) in patients with hypertrophic obstructive cardiomyopathy (HOCM) suffering from MR. Furthermore, the relationship between the degree of MR and left ventricular outflow tract (LVOT) peak gradient has not been well defined. This study investigated the impact of myectomy on post-operative MR patients and the association between this verity of MR and LVOT gradient.

Methods:

Since January 2006, 70 HOCM patients underwent septal myectomy due to LVOT obstruction and MR. We examined the overall clinical outcomes and the incidence of post-operative residual MR and its mechanisms.

Results:

Forty-three patients (61%) needed additional concomitant procedures such as CABG, AVR , MAZE; of them, 13 needed mitral valve (MV) surgery due to organic MV pathology. There were 0 early deaths and 4 late deaths. At follow-up (mean 30±22 months), 49(70%) patients were in functional class I or II. On echocardiography, 37 patients (53%) had residual mild MR and 2 (3%) moderate MR. The mechanisms of residual MR were: residual LVOT gradients, other mitral pathologies, or a combination of both.

Conclusions:

Of those patients with HOCM and MR, 18% had an organic MV pathology. In the remaining patients, myectomy significantly reduced the degree of MR, without necessitating additional mitral valve surgery. In these patients the severity of residual MR was closely related to the degree of residual LVOT gradient.