

**OBSTRUCTIVE HYPERTROPHIC CARDIOMYOPATHY: 6-MONTH
DYNAMICS OF CLINICAL AND ECHOCARDIOGRAPHIC PARAMETERS
AFTER MYECTOMY**

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To assess the dynamics of clinical, echocardiographic, laboratory, and functional parameters in patients with obstructive hypertrophic cardiomyopathy (HCM) during the 6-month period following surgical myectomy.

The study included 43 patients with obstructive HCM who underwent surgical myectomy. The mean age of the patients was 43.5 years (33–56); 28 (65.1%) were men and 15 (34.9%) were women, with a male-to-female ratio of 1.87:1. A comprehensive assessment was performed before surgery and 6 months after the intervention. The left ventricular outflow tract (LVOT) pressure gradient, interventricular septal thickness (IVST), left ventricular myocardial mass, ejection fraction (EF), parameters of diastolic function (E/A, E/e', e'), presence of systolic anterior motion (SAM) of the mitral valve, NT-proBNP levels, and 6-minute walk test results were evaluated. Paired Student's t-test and McNemar's exact test were used to compare paired measurements. A p-value <0.05 was considered statistically significant.

Six months after myectomy, a marked improvement in the principal hemodynamic parameters was observed. The LVOT gradient decreased from 78.4 ± 25.7 to 13.5 ± 7.8 mmHg ($p < 0.01$). The prevalence of SAM decreased from 36 (83.7%) to 6 (16.7%) patients ($p < 0.01$). Interventricular septal thickness decreased from 22.18 ± 5.75 to 15.23 ± 3.30 mm ($p < 0.01$), while left ventricular myocardial mass decreased from 307.2 ± 33.5 to 245.2 ± 32.8 g ($p < 0.01$). An improvement in diastolic function was observed: E/A increased from 0.89 ± 0.29 to 1.06 ± 0.10 , whereas E/e' decreased from 11.60 ± 1.68 to 10.37 ± 1.04 ($p < 0.01$). NT-proBNP levels decreased from 1339.9 ± 556.4 to 740.5 ± 456.4 , while the distance covered during the 6-minute walk test increased from 306.0 ± 45.0 to 388.2 ± 60.7 m ($p < 0.01$). Ejection fraction decreased from $68.3 \pm 5.8\%$ to $62.2 \pm 5.0\%$ ($p < 0.01$), concomitant with marked relief of LVOT obstruction and favorable changes in other clinical and hemodynamic parameters.

In patients with obstructive HCM, surgical myectomy results in substantial reduction of LVOT obstruction, regression of myocardial hypertrophy and SAM, improvement in diastolic function, reduction in neurohormonal burden, and increased exercise tolerance over a 6-month follow-up period. These findings demonstrate the high clinical and hemodynamic efficacy of surgical myectomy during the first 6 months after the procedure.