

PUBLICATIONS

HEMODYNAMIC PECULIARITIES IN PATIENTS WITH MITRAL VALVE RESTENOSIS

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Although surgical treatment is effective for mitral valve diseases, some patients develop restenosis, leading to myocardial remodeling and recurrent disturbances of intracardiac hemodynamic parameters. Studying the specific features of these changes in this patient group is important.

To evaluate the specific features of intracardiac hemodynamic parameters in patients with mitral valve restenosis.

The study was conducted at the Namangan Branch of the Republican Specialized Scientific and Practical Medical Center of Cardiology. Intracardiac hemodynamic parameters were assessed in patients with preserved valve function and in those who developed restenosis after surgical treatment for chronic rheumatic heart disease. The study included 122 patients with a mean age of 58.3 ± 11.2 years. Patients were divided into two groups. Group I consisted of patients who developed restenosis and recurrent valve dysfunction several years after mitral valve surgery ($n=44$). Group II included patients with well-preserved valve function after mitral valve surgery ($n=78$). Intracardiac hemodynamic parameters were analyzed using echocardiographic data (EchoCG, Mindray DC90). Statistical analysis was performed using Student's t-test.

Echocardiographic findings revealed the following. Left atrial enlargement was observed in all patients of both groups: 57.4 mm in Group I vs 51.5 mm in Group II ($p=0.002$). Pulmonary artery systolic pressure was elevated in both groups: 44.5 mmHg in Group I vs 30.3 mmHg in Group II ($p=0.001$). Mitral valve diastolic pressure gradient was 19.9 mmHg in Group I and 13.8 mmHg in Group II ($p=0.001$). Left ventricular ejection fraction was 64.0% in Group I and 61.8% in Group II ($p=0.033$). Mitral valve orifice area was reduced to 1.41 cm² in Group I, whereas in Group II it remained within normal limits ($p=0.001$). Left ventricular end-diastolic dimension was 49.8 mm in Group I and 51.2 mm in Group II ($p=0.023$). Left ventricular end-systolic dimension was 38.2 mm in Group I and 37.4 mm in Group II ($p=0.04$).

Patients with mitral valve restenosis demonstrated significant left atrial enlargement. Pulmonary artery systolic pressure was elevated in both groups, particularly in patients with restenosis. Left ventricular ejection fraction was preserved in both groups. Left ventricular end-diastolic and end-systolic dimensions remained within normal limits in both groups. All findings were statistically significant.