

P82. Chordal Preservation In Patients With Mitral Stenosis Undergoing Mitral Valve Replacement

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OBJECTIVES: Subvalvular preservation in mitral valve replacement (MVR) has been reported to improve left ventricular (LV) performance in patients with mitral regurgitation, but little is known in patients with mitral stenosis (MS). We evaluated the impact of chordal preservation on LV function in 61 patients with moderate to severe MS by echocardiography before and after MVR.

METHODS: Eleven patients underwent conventional MVR (CMVR) and 50 patients underwent MVR with complete chordal preservation (PMVR), and of which, 41 patients had chordal reconstruction with ePTFE and 9 patients underwent MVR preserving autologous chordae tendinae. Patients with concomitant aortic valve surgery were excluded. LV end-diastolic and end-systolic dimensions (Dd and Ds) and ejection fraction (EF) were measured. Preoperative patient characteristics and echocardiographic parameters had no significant difference.

RESULTS: Dd, Ds and EF at discharge did not show any significant difference, but at the mean follow up period of 37.2 ± 25.5 months, Ds in PMVR group was significantly smaller than CMVR group (30.1 ± 5.5 mm vs. 36.7 ± 5.7 mm, $p < 0.05$). Also PMVR group had better EF than CMVR group ($68.1 \pm 11.8\%$ vs. $54.1 \pm 18.8\%$, $p = 0.066$). Two hospital deaths from cardiac failure were seen in CMVR patients. There were 4 late deaths. The causes of the late deaths were cardiac in 2 of PMVR and 1 of CMVR, and cerebral in 1 of CMVR. The 1-year and 5-year survival rate was $96.0 \pm 2.6\%$ and $96.0 \pm 2.6\%$, respectively in PMVR patients and $72.7 \pm 13.4\%$ and $36.4 \pm 26.6\%$, respectively in CMVR ($p < 0.05$).

CONCLUSIONS: PMVR provided a better LV function and long-term survival over CMVR in patients with MS.