

ORAL PRESENTATION

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Triple-orifice repair in severe barlow disease with multiple-jet regurgitation: report of mid-term experience

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Background

Barlow disease represents a surgical challenge for mitral valve repair (MR) in the presence of mitral insufficiency (MI) with multiple regurgitant jets. We hereby present our mid-term experience using a midified edge-to-edge technique to address this peculiar MI.

Methods

From March 2003 till December 2012, 28 patients (mean age 53.8+/- 6 years, 16 males) affected by severe Barlow disease with multiple jets were submitted to MR. Preoperative transesophageal echo (TEE) in all the cases showed at least 2 regurgitant jets, involving one or both leaflets in more than one segment. In all the patients, a triple-orifice valve (TOV) repair with annuloplasty was performed. Intraoperative TEE and postoperative transthoracic echocardiography (TT) were carried out to evaluate results of the TOV repair.

Results

There was no in-hospital death and one late death (non-cardia related). At intraoperative TEE, the three orifices showed a mean total valve area of 2.98+/-0.3 cm2 (range: 2.5-3-3) with no residual regurgitation (2 cases of trivial) and no sign of valve stenosis (mean transvalvular gradient 4.5+/-1-3 mmHg.). At follow-up (mean: 68.9+/-12 months), TEE showed favourable MR and no recurrence of significant MI (6 cases of trivial and 1 of mild MI). Stress TEE was performed in 5 cases showing persistent effective velve function (2 cases of trivial MI at peak exercise). All the patients showed significant NYHA functional class improvement.

Conclusions

This report indicates that the TOV technique is effective in correcting complex Barlow mitral valves with multiple jets. Further studies are required to confirm long-term applicability and durability in more numerous cases.

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