

MEETING ABSTRACT

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Surgical vs. catheter-based paravalvular mitral valve leak closure (trans apical approach). Early results. Single center experience

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Background/Introduction

Following surgical mitral valve replacement paravalvular leaks may occur in up to 17% of patients. A significant fraction of these patients present with a symptoms of heart failure and/or anaemia. Conventional surgical closure is associated with increased morbidity and mortality. Alternative transcatheter closure has been developed and being introduced into the clinical practice with a reasonable success. More evidence is needed to compare the efficacy and safety between surgical and catheter-based paravalvular mitral valve leak closure.

Aims/Objectives

To compare efficacy and safety between two treatment methods of mitral valve paravalvular leak closure.

Method

A retrospective analysis of patients' medical records treated for mitral paravalvular leak at our institution in year 2005-2015. 41 patients had paravalvular leak closure. 31 patients had paravalvular leak repaired via conventional surgery, and 10 patients had catheter-based procedure (trans apical approach). Patients' data, operative variables, postoperative complications, 1 and 4 months postoperative results were analyzed.

Results

Patients in a catheter-based paravalvular leak closure group were older (71 ± 6 years vs. 63 ± 8 years, $p = 0,004$), and had higher incidence of essential hypertension (8 (80%) vs. 10 (32,3%), $p = 0,008$). Procedure was longer in surgical closure group (270 ± 98 min vs 171 ± 86 min,

$p = 0,007$). Early after the treatment mild/moderate regurgitation of a paravalvular leak was found more frequently in a catheter based paravalvular leak closure group (5 (50%) vs. 1 with severe regurgitation in conventional surgery group (3,45%), $p = 0,0004$).

Discussion/Conclusion

Catheter-based closure of a paravalvular leak is reserved for older and sicker patients. Although the procedure of catheter-based paravalvular leak closure is quicker, patients have higher incidence of mild/moderate paravalvular leak after the procedure, which has reduced over time. With more clinical experience and development of special equipment, catheter-based paravalvular leak closure could be a possible alternative to the conventional operation.

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