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# **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 catheterbased paravalvular mitral valve leak closure.

### **Aims/Objectives**

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

## Method

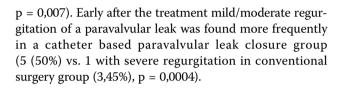
A retrospective analysis of patients' medical records treated for mitral paravalvular leak at our institution in year 2005-2015. 41 patients had paravalvular leak closure. 31 patients had paravalvular leak repaired via conventional surgery, and 10 patients had catheter-based procedure (trans apical approach). 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  $\pm$  6 years vs. 63  $\pm$  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  $\pm$  98 min vs171  $\pm$  86 min,

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### **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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