

MEETING ABSTRACT

Open Access

Results of tricuspid valve reconstruction using a semirigid ring or a flexible band

Ivan Aleksic*, Jörg Hoffmann, Michal Glanowski, Ina Schade, Sebastian P Sommer, Marcus Leistner, Armin Gorski, Rainer G Leyh

From World Society of Cardiothoracic Surgeons 25th Anniversary Congress, Edinburgh
Edinburgh, UK. 19-22 September 2015

Background/Introduction

Current concepts for tricuspid valve surgery recommend concomitant tricuspid valve reconstruction (TVR) utilizing annuloplasty devices over simple suture annuloplasty.

Aims/Objectives

It is unclear if flexible bands offer the same long-term results like rigid or semi-rigid rings. We aimed to evaluate possible outcome differences between the flexible SJM Tailor Band (FB group) and the Carpentier-Edwards rigid MC3-Ring (RR group).

Method

We retrospectively evaluated 141 patients undergoing tricuspid valve reconstruction (TVR) with the MC3-ring or the Tailor Band or suture annuloplasty between 01/11 and 12/13. Demographic variables, intraoperative parameters, pre- and postoperative echocardiographic studies were analyzed. A total of 108 pts undergoing TVR formed the RR group and 20 the FB group. Patients treated with suture annuloplasty or other devices were excluded.

Results

Age, gender, preop. Euroscore II and severity of tricuspid regurgitation (TR) did not differ among groups. Intraoperative parameters (procedure time, cardiopulmonary bypass and cross-clamp time) were also similar. Long-term mortality with a median follow-up of 1361d (range: 854-1900d) was similar, too. Postoperative echocardiographic follow-up revealed a trend for more severe TR after reconstruction with the band than with the rigid ring ($p = .064$, Mann-Whitney-U). Subgroup analysis of

Table 1 Group/degree of TI TI grade I TI grade II p = 0.043 (Mann-Whitney-U)

RR group (N = 38)	25	13
FB group (N = 9)	2	7

patients undergoing mitral valve plus concomitant tricuspid valve reconstruction demonstrated more moderate TR in the FB group (Table 1).

Discussion/Conclusion

Tricuspid valve reconstruction with the rigid MC3 ring yields a higher rate of just trace tricuspid regurgitation than with a flexible band in patients undergoing concomitant mitral valve surgery. A trend towards more trace tricuspid regurgitation was observed in the overall study cohort. Longer follow-up or even more desirable a multi-center study is warranted to determine if usage of flexible bands will lead to more reoperations or more overt right-sided heart failure than rigid rings.

Published: 16 December 2015

doi:10.1186/1749-8090-10-S1-A317

Cite this article as: Aleksic et al.: Results of tricuspid valve reconstruction using a semirigid ring or a flexible band. *Journal of Cardiothoracic Surgery* 2015 **10**(Suppl 1):A317.

Department of Thoracic and Cardiovascular Surgery, University Hospital Würzburg, Würzburg, 97080, Germany