

ORAL PRESENTATION

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Medium-term results after implant of a new generation stentless aortic prosthesis: hemodynamic performance of medtronic 3F[®] stentless equine pericardial aortic valve

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From 23rd World Congress of the World Society of Cardio-Thoracic Surgeons
Split, Croatia. 12-15 September 2013

Background

Aim of this study was to evaluate the clinical and hemodynamic results at 5 years of Medtronic 3F[®] stentless equine pericardial aortic valve.

Methods

Between March 2007 and December 2012 a total of 120 consecutive patients affected by aortic valve disease received a 3F valve at our unit. The size ranged between 21 and 29, with prevalence of 23 and 25 implants. Mean age at operation was $75,6 \pm 8,0$ years, 54% were males, the mean logistic EuroScore was $8,7 \pm 5,2$ and 47% received concomitant procedures. For isolated replacements the mean ECC time was $90' \pm 10'$, Cross Clamp time $72' \pm 8'$. In 12 pts the aortic prosthesis was included in a Dacron tube straight graft for a Bentall operation.

Results

Early mortality in isolated AVR was 2,1% and 3,1% in the entire group. There have been 6 late all-causes deaths (5,6%), with a survival of 90% at 5 yrs. 91% of patients are in NYHA class I or II. Actuarial freedom from reoperation for structural deterioration is 100% at 5 years. Freedom from endocarditis and thromboembolic events was 96% and 99% respectively. The 72 patients evaluated under exercise at 75w protocol showed a moderate increase in the MPG (from $7,8 \pm 3,3$ mmHg to $11,6 \pm 4,0$ mmHg) for the entire series at five years follow up.

Conclusions

The 3F valve shows excellent hemodynamics, durability and freedom from structural deterioration at 5 yrs follow-up. Freedom from endocarditis and thromboembolic events looks satisfactory. Longer follow-up times are needed for a better evaluation of this interesting new generation of user friendly aortic valve substitute.

Published: 11 September 2013

doi:10.1186/1749-8090-8-S1-O320

Cite this article as: Stefanelli et al.: Medium-term results after implant of a new generation stentless aortic prosthesis: hemodynamic performance of medtronic 3F[®] stentless equine pericardial aortic valve. *Journal of Cardiothoracic Surgery* 2013 **8**(Suppl 1):O320.

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