

## P-191

### **Follow-up after Melody revalvulation: “aggressive”prestenting has nearly abolished stent fractures; endocarditis is a concern.**

*Cools B. (1), Boshoff D. (1), Heying R. (1), Jansen K. (1), Louw J.(1), Eyskens B.(1), Frerich S.(2), Troost E.(1), Budts W.(1), Gewillig M.(1)*

*(1) UZL, Leuven, Belgium*

*(2) AZM, Maastricht, The Netherlands*

#### Introduction

Long term function of the Melody valve depends on stent integrity and leaflet function. Follow-up data beyond 1 year are rare. Prestenting has been put forward to reduce stent fractures.

#### Patients and methods

Prospective ongoing interim analysis of PPVI; single center; Melody implants since 2006; systematic follow-up with dedicated database. Leaflet function analyzed by Doppler velocity across the valve or regurgitation. Chest X-ray at 6 and 12 months and thereafter annually to look for stent fractures. The registry was screened for the event of endocarditis.

#### Results

109 Melody valves were implanted in 108 patients in 2006-2013; mean age 18,4 years (4,5 – 81,6); follow-up 2,4 years (31 days – 6,9 years). In the first 8 patients no prestenting of the RVOT was performed (label recommendation). In the next 95 patients prestenting was always performed prior to or at the time of PPVI. 125 prestents were implanted until the outflow tract became a rigid tube without relative motion nor wringing; 78 pts had 1 prestant, 16 pts had 2, 5 pts received 3 stents; Covered CP stents (n=56), Andrastent XXL (n=48), Max LD Intrastent (n=17) and Genesis (n=4). The PPVI was dilated to 22 mm in 71pts, to 20 mm in 28pts and in some younger kids to 18 mm (n=6). During follow-up stent fractures were observed in 4/8 non-prestented and 2/100 prestented group (p< 0.05); no recompression. There was no relevant increase in peak RVOT velocity ( + 0,2 m/sec at 3y, 0,5 m/s at 5y) ; pulmonary regurgitation showed minimal change (at implantation 0,5/4; at 3y: 0,5/4, at 5y: 1/4). In 7 patients endocarditis occurred; freedom from endocarditis was 77% at 5 years. All were sterilized with antibiotic treatment, 2 patients had residual increased gradient, which in 1 pt required restenting and delayed re- PPVI.

#### Discussion

Aggressive prestenting of the RVOT before revalvulation offers good stent support which nearly abolishes stent recompression or fracture. Maximal dilation leads good leaflet survival. The Melody valve is vulnerable for endocarditis which is a major threat for conduit longevity.