

**P-301**

### **Transcatheter Management of Failed Melody Valves After Successful Placement**

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#### **Background:**

Transcatheter replacement of pulmonary valve with Melody valve is an accepted therapy in select patients with failed right ventricular – pulmonary artery (RV-PA) homograft or pulmonary prosthetic valve. Short term result is excellent but mid & late outcome is unknown. Evaluation of the durability and longevity of the Melody valve is ongoing. This study examined the Melody valve failure after successful placement. Failure is defined as symptomatic recurrence of significant stenosis ± regurgitation.

#### **Methods:**

Since July 2006, 62 of 63 Melody valves had been successfully implanted in 55 patients. The valves have failed in 6 patients 0.4-4.5 (mean 2.6, median 2.3) years after successful implant. Three of the six were pre-stented before valve replacement. One failed Melody valve was replaced surgically and one await cardiac catheterization. The remaining 4 patients underwent transcatheter placement of another Melody valve after evaluation by CT-angiography. All were pre-stented before replacing successfully with another Melody valve.

#### **Results:**

There was no mortality, vascular or myocardial injury. The valves narrowed from a mean diameter of 19.7 (range 18-22, median 19.0) mm in diameter after the first Melody valve, to a mean of 11.4 (range 9-15, median 10.8) mm. All valve stents were fractured, spontaneous in two, and after high impact chest contact activity in the others. One was inadequately expanded at first Melody valve implant, and two were pre-stented. The ensuing significant stenosis was reduced from 46-64 (mean 56, median 57) mmHg to 15-34 (mean 22, median 17) mmHg after the second Melody valve implant. All new Melody valves were competent.

#### **Conclusions:**

We conclude that it is feasible to manage failed Melody valves by transcatheter placement of a second Melody valve, thereby prolonging the lifespan of the original RV-PA conduit and avoiding another open heart procedure.