

JCK E-Oral Presentation

JCK E-Oral Presentation 2 (III-JCKEOP02)

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Sun. Jul 9, 2017 1:00 PM - 2:00 PM E-Oral Presentation Area (Exhibition and Event Hall)

1:00 PM - 2:00 PM

[III-JCKEOP02-06] Mitral valve replacement using stented bovine jugular vein graft (Melody valve) in infants and small children

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BACKGROUND: Melody[®] valve (Medtronic, MN) implantation in the mitral position is a novel procedure for the small mitral valve (MV) annulus, which does not require anticoagulation. We sought to analyze our initial experience with mitral valve replacement (MVR) with Melody[®] valve.

METHOD: The records of patients who underwent MVR using Melody[®] from 2014 to 2016 were retrospectively reviewed. The Melody[®] (22 mm) valve was prepared by sewing a 3.5 mm Gore-Tex tube graft at the middle of the stent as a cuff and resecting one or three zigs to avoid left ventricular outflow tract (LVOT) obstruction.

RESULTS: Five patients (age, 11 months, 5 - 16 months; weight, 6.8 kg, 4.6 - 8.6 kg) were included. All patient had dysplastic MV, including severe mitral stenosis (n=3) and/or regurgitation (n=3). Three patients had Melody[®] valve MVR as a salvage procedure: mechanical valve thrombosis (n=2) and tissue valve dysfunction (n=1). The valve was inflated to 18 mm (n=2) or 20 mm (n=3). Intraoperative echocardiography revealed trivial or none regurgitation in all patients with mean pressure Doppler gradient across the valve of 2 mmHg (1 - 4 mmHg), and peak LVOT gradient of 5 mmHg (0 - 12 mmHg). All the patients but one were discharged home. There was one patient who had sudden death at 3 months after surgery.

CONCLUSIONS: Melody[®] valve MVR is a viable alternative to mechanical MVR in small children. Early functional outcome of this procedure is excellent, whereas long-term outcome is to be investigated.