accuracy, but also for appropriateness of language used in describing the level of evidence provided by the study.

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Reference

CARDIOVASCULAR FLASHLIGHT

Surgical recycling of a percutaneously implanted Melody valve

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A child corrected for pulmonary atresia and VSD (Fallot type) during infancy underwent a conduit change done with a 18-mm Contegra (Medtronic Inc., USA) at 7.5 years of age. She needed stenting, pre-stenting and eventually, Melody (Medtronic Inc.) valve implantation for supravalvar conduit stenosis 3 months after implantation (Panel A). During withdrawal of the sheath, the pre-stent and the Melody construct dislodged into the right ventricle (RV) (Panel B) because of the softness of the newly implanted conduit, necessitating an emergent operation. After carrying out cardiopulmonary bypass, the right ventricular outflow tract (RVOT) was slit open on an empty beating heart and the dislodged Melody valve was fished out and noted to be in good condition. The distal stent covered the distal stenosis adequately and held it open and hence was left in situ. The Melody valve (in a crimped position) was placed stretching the whole course of the conduit and balloon dilated to 20 mm (Panel C). The proximal struts (posteriorly and laterally) of the Melody were bent to conform to the RV-Conduit transition and suture fixed to prevent migration. The RVOT was closed with a Xenopericardial patch and the proximal struts (anteriorly) sutured to it (Panel C). The patient was extubated 10 h after the surgery and discharged after 14 days. The Melody valve showed good function with trivial regurgitation (Panels D–F). At 1 year the peak/mean gradient was 30/9 mm Hg with trivial regurgitation, normal RV size, and normal biventricular function. ‘Recycling’ of the Melody valve saved on cost and avoided a full-blown emergent conduit change operation and a potential stenotic process by preventing a circular anastomosis. This procedure has inadvertently opened doors for surgical insertion of a nearly ‘Sutureless’ biological valve in pulmonary position in children, with the possibility of subsequent percutaneous balloon dilatation.

Panel A. Long segment supravalvar Contegra stenosis.
Panel B. Dislodged pre-stent and Melody construct into the RV cavity; the distal stent remains in situ.
Panel C. Surgically anchored Melody valve. The distal stent treating the supravalvar stenosis was left in situ.
Panel D–F. Postoperative 2D echo and colour Doppler images of a well-functioning Melody valve.