Outcome of bioprosthetic valves in pulmonary position implanted for reconstruction of the right ventricular outflow tract in adult congenital heart disease

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Methods

Â Retrospective study on 133 adult patients with ACHD from Jun 2005 to April 2015
Â Age at surgery 34.5 years (18.4 – 70.4)
Â Follow up 4.34 years (0.08-10.97)

Patients characteristic
Results

There were no perioperative deaths, and 1 (0.8%) late death.

Freedom from reoperation

1 year 100%, 4 years 99%, 8 years 86.1%
Trifecta vs. Magna p<0.05

1 year 98.3%, 4 years 90.2%, 8 years 56.9%

• Systolic gradient ≥40 torr
• PI ≥2.5 more than moderate

Improvement of hemodynamic and clinical parameters
Conclusion

PVR using bioprosthetic valves has a low mortality and carries lasting improvement in functional status and right ventricular function in ACHD patients. Freedom from re-operation and valve dysfunction is acceptable. Further studies are needed to compare long-term performance of different valves types in the pulmonary position.