Mitral valve replacement in infants

Sir,

I read with interest the article by Dranseika *et al.* on Melody valve for mitral valve replacement (MVR) in small children.[1] Although the numbers are small, their efforts are to be applauded for attempting to overcome the difficulties of MVR in small children. They conclude that it is *FEASIBLE* and reproducible. They also conclude that this offers a better solution to EXISTING alternatives for infants requiring prosthetic mitral valve.

Feasibility alone should not be a deciding factor as it is dependent on the surgeon's skill and availability of alternatives. It is surprising that they have not considered all the existing alternatives available for such a situation. The pulmonary autograft is an excellent substitute and provides a far superior option.[2,3] It is a living valve, does not degenerate, and allows growth of the valve.[4] In the reconstruction of the right ventricular outflow tract, they could use a homograft, Contegra valve, or the Melody valve with the option of balloon dilatation if required. This is a superior option to using the Melody valve in the mitral position. Presumably, the European tissue banks would have adequate supply of homografts.

Another option is to use a pediatric heart-transplant recipient's aortic or pulmonary valve (homovital valve) as a replacement for the mitral valve in infants in the Ross II technique.[5,6] This will be similar to the Ross II operation and technically simpler option to safeguard and retain the pulmonary autograft for any later requirement.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Arkalgud Sampathkumar[1,2]

[1]Department of Cardiothoracic Surgery, AIIMS, New Delhi, India, [2]Senior Consultant, Max Super Specialty Hospital, Ghaziabad, Uttar Pradesh, India.
E-mail: asampath_kumar@hotmail.com

Submitted: 10-Feb-2021 **Accepted:** 10-Feb-2021 **Published:** 03-May-2021

REFERENCES

1. Dranseika V, Pretre R, Kretschmar O, Dave H. Melody valve to replace the mitral valve in small children: Lessons learned. Ann Pediatr Card 2021;14:35-41.
2. Brown JW, Fiore AC, Ruzmetov M, Eltayeb O, Rodefeld MD, Turrentine MW. Evolution of mitral valve replacement in children: A 40-year experience. Ann Thorac Surg 2012;93:626-33.
3. Brown JW, Ruzmetov M, Rodefeld MD, Turrentine MW. Mitral valve replacement with Ross II technique: Initial experience. Ann Thorac Surg 2006;81:502-8.
4. Kumar AS, Aggarwal S, Choudhary SK. Mitral valve replacement with the pulmonary autograft; The Ross II Procedure. J Thorac Cardiovasc Surg 2001;122:378-79.
5. Chauvaud S, Waldmann T, d'Attellis N, Bruneval P, Acar C, Gerota J, *et al.* Homograft replacement of the mitral valve in young recipients: Midterm results. Eur J Cardiothorac Surg 2003;23:560-65.
6. Mehrotra R, Srivastava S, Airan B, Koicha MA, Mehra NK, Venugopal P, *et al.* Aortic valve replacement with a homovital valve. Tex Heart Inst J 1997;24:221-22.

Access this article online

Quick Response Code:

Website: www.annalspc.com

DOI: 10.4103/apc.apc_29_21

How to cite this article: Sampathkumar A. Mitral valve replacement in infants. Ann Pediatr Card 2021;14:249.