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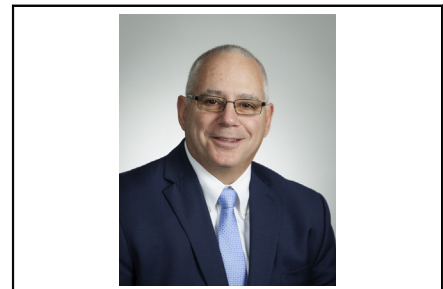


Commentary: Pulmonary valve replacement: A good option with room for improvement

James Quintessenza, MD

In this issue of the *Journal*, Baird and colleagues¹ report on 1278 patients younger than 30 years undergoing pulmonary valve replacement. This multicenter, retrospective review is consistent with other reports in the literature. It is known that bioprostheses provide a good solution for pulmonary valve replacement. It is also known that these prostheses will degenerate with time and that this degenerative process is accelerated in younger patients. In this study, the performances of the Sorin Mitra-flow (Sorin Group USA Inc, Arvada, Colo) and the St Jude bioprosthesis (Abbott Vascular, Santa Clara, Calif) fared worse than those of the other valves used. Interestingly, the second-generation Perimount valve (Edwards Lifesciences, Irvine, Calif) seemed to do as well as the third-generation Magna valve (Edwards Lifesciences), suggesting that not much progress has been made in preventing degeneration of these valves. The overall take-home message is that we are good, but we still have a lot of work to do regarding durability.

Currently, there are multiple alternative options for patients faced with the need for lifelong for pulmonary valve replacement. In medicine, as in many other areas, this usually means that no ideal solution exists. Our interventional colleagues believe that transcatheter valves in stents seem to degenerate less.² Perhaps some improvement will be realized with this technology; time will tell. Possibly, novel biomaterials or synthetic material such as expanded polytetrafluoroethylene³ or newer mechanical valves coupled with improved methods to



James Quintessenza, MD

CENTRAL MESSAGE

With low early morbidity and mortality, pulmonary valve replacement provides a good solution for our patients, but durability remains a significant issue.

modulate the coagulation system will provide better outcomes in the future; again, we will have to wait and see. For now, patients have available what they have, and the holy grail for them is yet to come.

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From the Department of Cardiovascular Surgery, Johns Hopkins All Children's Heart Institute, St Petersburg, Fla.

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Address for reprints: James Quintessenza, MD, Johns Hopkins All Children's Heart Institute, 501 6th Ave S, St Petersburg, FL 33701 (E-mail: Jquinte1@jh.edu).

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