Are we throwing the baby out with the bath water?

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In the current era of increased use of bioprosthetic valves and a dramatic rise in the application of transcatheter aortic valve replacement (AVR)/implantation, in this issue of the *Journal*, Ogawa and colleagues¹ provide data that add to the armamentarium for treating aortic stenosis in very elderly individuals. With a longer-living population, life-long protection from reoperation is necessary.² Although reoperation generally can be performed with acceptable mortality, this might not be the case in very elderly patients, at 15 to 20 years after AVR. Furthermore, most published studies of reoperation have not addressed the significant morbidity associated with reoperation in elderly patients, or the associated expenses, prolonged recovery, and burden on families.

Owing to the need for life-long anticoagulant therapy, mechanical AVR is little used in patients aged >80 years, yet these individuals may have many more years of life in some societies. Are these issues worth the trade-off for chronic anticoagulation?

Those elderly patients with a small body surface area subjected to biological AVR have the risk with the inherent and probable impact of patient–prosthesis mismatch, that of adding a more complex annular enlargement procedure or the need for life-long anticoagulation at some point. As noted by the authors, patient–prosthesis mismatch was rare in this group undergoing AVR with the St Jude Regent valve, consistent with previous reports.²

Although this experience is small, and no conclusions can be drawn, the complications of anticoagulation were minimized when lower international normalized ratio target ranges, the use of aspirin, and access to modern health care were applied. In fact, the most lethal valve-related event, hemorrhage, was more common in the biological AVR group. Nevertheless, it is known that nearly one-half of valve-related hemorrhagic events

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Central Message

The use of a mechanical valve prosthesis is an alternative therapy for aortic valve replacement in the elderly.

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seen after 25 years of follow-up occur in the first year after surgery.² The addition of home monitoring also should be of benefit over time, as should individualizing the anticoagulation regimen.^{3,4}

Surprisingly, in this study,¹ thromboembolism was more common with mechanical AVR, but 75% of the events were minor.⁵ Valve-related mortality was absent in the first year of follow-up.

Given the inherent limitations of this report, the use of the 17-mm Regent valve served the population well, with improvement in symptoms and patient safety. The use of such a small prosthesis in adults is uncommon, but should be considered in patients for whom this is applicable.

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George Dehelly
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August 16, 1938,
Robert Gross
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arteriosus.

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In July of 1951
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vasculature.

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