

The author reported no conflicts of interest.

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REPLY: PAS EXCELLENCE

Reply to the Editor:



Kattach and colleagues¹ take issue with Lehmann and colleagues² conclusion that the Trifecta (Abbott Structural Heart) bioprosthetic valve has “excellent” outcomes. Primarily, they point to flaws in Lehmann and colleagues² comparison, which used published literature on the Perimount (Edwards Lifesciences) rather than a head-to-head comparison of structural valve degeneration (SVD). Indirect comparisons are often challenging to interpret. Kattach and colleagues¹ assert that a numerically comparable SVD rate is in fact unfavorable, because Lehmann and colleagues’ cohort was older than the comparative literature^{3,4} and should thus be expected to have a lower, not comparable, SVD rate.

First, whether or not young age is a definite risk factor for the actuarial rate of SVD is not so clear. Bourguignon and colleagues³ study of patients aged 50 to 65 years undergoing Perimount valve implantation found that age at implantation was neither a risk factor for SVD nor for

reoperation for SVD.³ The first outcome (SVD alone) is the most rigorous way to study valve durability. This raises a second issue, namely the outcomes studied. The article by Yongue and colleagues,⁴ which Kattach and colleagues¹ cite as supporting evidence, found younger age was associated with higher explant for SVD, which is not the same as SVD. As those authors discuss, rates of explant for SVD in the elderly may underestimate true actual SVD rates, due to either the competing risk of death or nonoperative management as a consequence of perceived reoperative risk.

In both the Bourguignon and colleagues³ and Youngue and colleagues⁴ studies, valve-in-valve transcatheter aortic valve replacement (TAVR) was not an option to treat SVD, and so using intervention rates as a comparison to the work offered by Lehmann and colleagues² further muddies the waters. As I read it, all patients who developed SVD in the study by Lehmann and colleagues² had intervention, 57% being treated by valve-in-valve TAVR. With TAVR not available in historical literature, one could extrapolate the data presented by Lehmann and colleagues² to mean that historical explant rates might account for only 40% to 45% of SVD cases in elderly patients.

Nevertheless, I agree with Kattach and colleagues¹ challenge of the Trifecta outcomes as “excellent.” There have been sufficient studies in the published literature to raise concerns about the Trifecta’s early performance. The ideal way to put this question to rest would be a propensity-matched study examining both SVD according to Valve Academic Research Consortium criteria and reintervention rates, whether by surgical explant or valve-in-valve

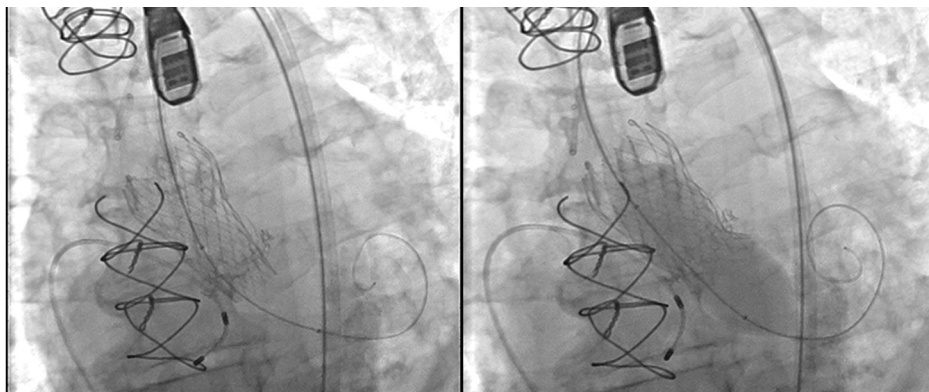


FIGURE 1. Suboptimal expansion of a valve-in-Trifecta bioprosthetic valve (Abbott Structural Heart) (*left*) can only be treated with balloon remodeling (*right*), not balloon valve fracture.

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TAVR. Given the lack of data on valve-in-valve TAVR durability, longer-term outcomes after reintervention are also needed, especially given the inability to fracture Trifecta valves (Figure 1).

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