in light of the data that the most common SAVR valve implanted in the United States is a 21-mm valve. This series from Michigan provides reference to discuss the significant challenges of surgical explantation of TAVR valves. It is also important to surgeons that an initial strategy of SAVR, with a large-sized bioprosthesis and even potential root enlargement, followed by TAVR valve-in-valve may be the safest strategy for young patients with aortic valve disease.

References

Commentary: Good information is the best medicine
Jay K. Bhama, MD

Dr Michael E. DeBakey said it best when he declared, “Good information is the best medicine.” In our quest to balance our desire to offer cutting-edge technologies to our patients while also maintaining a very high standard of care, this statement remains a guiding principle.

In this issue of the Journal, Fukuhara and colleagues1 provide us both a unique perspective as well as some “good information” on the role of transcatheter aortic valve replacement (TAVR) in the primary management of patients with aortic valve stenosis. The study details their experience with 17 patients who required surgical explant of their TAVR valve for a variety of clinical reasons. Two major points are made. First, they point out that the technical challenges associated with removal of the TAVR prosthesis become more complicated when the device has been implanted for more than a year, often requiring complex aortic root repair. Second, they demonstrate that these patients are at nearly 3-fold greater predicted risk for mortality when they represent for explant of their device compared with when the device is implanted.

These findings are nascent and quite relevant, as there have been very few reports detailing the fate of failed TAVR prosthesis, especially from the surgical vantage point. As a consequence of this vacuum of data, there are numerous assumptions made at the time of initial TAVR therapy, both by cardiologists and surgeons, regarding the downstream management of the failed TAVR prosthesis.
This includes the assumption that repeat TAVR is essentially a guaranteed option and that later surgical aortic valve replacement will be of similar risk to primary valve replacement. As demonstrated in this study, neither of these assumptions are necessarily good assumptions, with nearly 70% of patients not being repeat TAVR candidates due to either anatomic considerations or aortic insufficiency and a 12% overall hospital mortality rate. Fukuhara and colleagues are astute to have focused on this relatively small cohort of patients, as their findings have significant implications for the expansion of TAVR therapy to lower-risk patients, especially in younger age groups, in whom repeat intervention is a not just possible but rather probable. The small numbers of patients in this study represent its major limitation, and as the authors suggest, further investigation in larger cohorts is certainly warranted. Clearly, the role of TAVR in the long-term treatment strategy of young, low-risk patients deserves further and closer consideration.

Heart team providers face a unique management conundrum in this cohort of patients. TAVR is an extremely attractive option from the recovery and return to function standpoint but its shimmer certainly fades when considering the long-term uncertainties of TAVR durability, especially in the light of these findings. Often, the assumptions surrounding downstream repeat TAVR become the misguided principles for early decision-making in these patients. If nothing else, the investigators from University of Michigan should be commended for giving us some “good information” and helping us practice better medicine by understanding that some of our assumptions should not be accepted whimsically, especially in young, low-risk populations.

Reference