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VALIDATION OF THE “V” Reply to the Editor:

We appreciate Urbanski's leadership in creative solutions for the moderately dilated aortic root and the kind comments in his letter to the Editor.¹ His still photographs of the procedure are clear and instructive.

We are pleased to learn of his large series of patients (n = 62) who have successfully undergone “V-shaped” remodeling of the aortic sinuses. His experience, reported in the Letter to the Editor,¹ provides substantial validation for the concept of V-shaped resection. It is reassuring that his patients have done well in the short term and subsequently.

With Urbanski's validation, we consider that the V-shaped resection of the noncoronary sinus (Figure 1)² provides the surgeon with a simple, safe alternative for the older patient with moderate (4-5 cm) dilatation of the aortic root. We do not recommend this procedure for younger patients or those with severe dilatation, in whom we would perform some variety of aortic root replacement procedure.

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FIGURE 1. Marking the resection line for the V-shaped remodeling of the noncoronary sinus.

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SIMPLEST SOLUTIONS ARE NOT ALWAYS THE CLEVEREST: CAN WE STITCH IN AN INFECTED ANNULUS? SHOULD WE RETHINK THE CURRENT GUIDELINES?

To the Editor:

The considerations expressed by Dr Bando¹ deserve to find a rapid application so that the surgical treatment of valve endocarditis can be addressed successfully. Although the study by Kim and colleagues² is sustained by a valid statistical analysis supported by a propensity score matched study, the short follow-up makes the conclusions fragile and open to many criticisms that still need to be addressed, as we have pointed out.³ The factors suggested as the drivers in the choice between allograft or conventional prostheses, such as vegetations larger than 10 mm, have proven inconsistent. How many of these are located on a single leaflet with a nonextended annulus involvement? Unfortunately, the general trend seems to have moved toward the use of the “simplest solution,” but the easiest option is not always the one that leads to the best long-term results.

The presence of extensive vegetation is associated with the compromise of the entire valve and rarely is only a single leaflet involved. Moreover, lesions greater than 10 mm involving more than one leaflet often are associated with a severe inflammatory response, also involving the perivalvular tissues, which become extremely friable. The consistency of the annulus in this case as well as of the adjacent regions is not reliable for suturing. Is this the condition described in Class IIa, Level of evidence B of The American Association for Thoracic Surgery guidelines?⁴ What is the limit of a correct debridement without a compromise of the annulus in the presence of an active infective process?

For patients with severe infectious extension, the benefit of an allograft implant is undisputed, provided that the patient has multiple regions significantly affected with compromise of the mitroaortic junction, left ventricular outflow tract, or aortic root. Expert consensus favors correction of endocarditis with allograft when there is substantial annular and periannular tissue destruction, although the question of which surgical

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strategy is the most effective remains controversial, even when the infectious process is still active. In fact, most cardiac surgeons think that the use of allograft is not related to the severity of the infection but rather to the fact that this substitute has a curtain of perivalvular tissue that can be used to reconstruct the periannular structures. Rationale in favor of allografts should be based on their relatively lower reinfection rate in presence of some strains of *Staphylococcus aureus* and *Streptococcus viridans* that are known to be extremely aggressive.

The scientific community should probably reflect on the inclusion within the Duke classification of an anatomopathologic stratification of the lesions as another discriminatory criterion in the guidelines for treatment of endocarditis. Clearly, to get out of this tunnel and reach a definitive answer, we agree with Dr Bando on undertaking long-term comparative studies. The potential roads to be followed in this context include rigorous evaluations of long-term outcomes with the use of propensity score-matched analysis and randomized clinical trials, which currently are scarcely available and only focused on the comparison of early surgery versus conventional treatment for infective endocarditis.⁵

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ALLOGRAFTS REMAIN A CORNERSTONE OF SURGICAL TREATMENT OF INVASIVE AND DESTRUCTIVE AORTIC VALVE INFECTIVE ENDOCARDITIS: SURGEON AND

TECHNIQUE DO MATTER!

Supplemental material is available online.

Reply to the Editor:

We read with interest several recent articles in the *Journal* regarding the most appropriate prosthesis for aortic valve infective endocarditis (IE).¹⁻³ As a group among those with the largest experience in treating IE, we still strongly believe that allografts have an important place in treating extensive and destructive aortic valve IE.⁴ Many recent reports claim that allografts are inferior to replacement alternatives, primarily citing high mortality as an argument against their use. These investigators almost invariably have used allografts in the most severe cases, however, precluding direct comparison of outcomes with those of alternatives.^{E1-E6}

The new American Association for Thoracic Surgery consensus guidelines for IE still advocate selective roles for allografts.⁵ First, when IE is limited to the cusps, and the root and annulus are preserved after débridement, an allograft is not necessary; however, it is reasonable to implant any new prosthetic valve on the basis of normal criteria. Second, allografts are recommended for patients with severe invasive and destructive aortic valve IE; the more extensive and destructive the infection, the stronger is this argument. In 2002, Sabik and colleagues^{E7} reported our group's experience with allografts for aortic prosthetic valve IE; in-hospital mortality was 3.5%, and intermediate-term survival was comparable to that of aortic valve surgery for non-IE. We do not exclude the possibility that greater awareness of the importance of radical débridement has reduced the added benefit of allografts in this group of patients. This possibility is reflected in recommendations 5.5 and 5.6 in the latest American Association for Thoracic Surgery guidelines (Appendix E1).⁵

These operations are difficult and have the highest reported mortality of any valve surgery. Nevertheless, on the basis of our extensive experience with advanced invasive cases and patients treated with nonallograft substitutes in this situation, we remain strong believers in the superiority of allografts in that setting. Allografts are not failure proof; our experience with failed operations for IE includes dehiscence of allografts with proximal pseudoaneurysms and recurrent IE. Further, some reports raise concerns about allograft durability and the risk of allograft reoperations in general.^{E8,E9} Experience with and mastery of the