Commentary: No plan is perfect: It's about making choices

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Acute type A aortic dissection.

Central Message

For acute type A aortic dissection, choosing ARr versus ARR can be a conundrum. A superb program offers expert advice and outstanding results.

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Although this study by Yang and coauthors¹ is retrospective, it is of sufficient size to allow for reasonable conclusions. They apply specific criteria to facilitate a decision-making process intraoperatively. Their purpose is not to compare which of the 2 operations is superior (aortic root repair [ARr] vs aortic root replacement [ARR]), but rather it is to present their results of these 2 different approaches that are based on key criteria. For patients undergoing ARr in the setting of acute type A aortic dissection, an evidenced-based, decision-making algorithm is outlined.

In-hospital mortality was similar for ARR and ARr (8.5% and 8.2%, respectively), as were other postoperative morbidities, including new-onset renal failure, stroke, myocardial infarction, and sepsis. Regarding Kaplan-Meier survival analysis, survival was similar (62% for ARR vs 65% for ARr at 10 years), as was the cumulative incidence of reoperation (11% for ARR vs 7% for ARr at 15 years). These results are somewhat better than those reported by Lee and colleagues² in a recent analysis of the Society of Thoracic Surgeons Adult Cardiac Surgery Database presenting outcomes for patients with acute type A aortic dissection. The authors' results are also better than those reported by Conzelmann and colleagues,³ who analyzed mortality for patients with acute type A aortic dissection from the German Registry for Acute Aortic Dissection Type A.

The results of Yang and colleagues,¹ who are affiliated with a dedicated, high-volume, aortic center, must be taken into context. These outstanding results are less likely to be reproduced in smaller programs in which aortic dissection is encountered far less frequently. The authors include results from patients undergoing valve-sparing ARR; it is important to note that this is a technically demanding operation, especially so in the setting of acute type A aortic dissection, which in most circumstances will command longer aortic crossclamp times.⁴ Care must be taken in

choosing procedures for perceived long-term benefits rather than demonstrated early survival benefits, particularly when undertaking a more complex approach to repair, such as ARR rather than ARr or valve-sparing ARR rather than the well-established Bentall procedure (ie, composite valve graft replacement). In the authors' current series, as well as presented in the literature in general, a limited ARr often yields good operative results in a high-risk setting where simply patient survival is the primary goal. When more is necessary, further evidence for making a good choice is substantially advanced by the current experience from the group at Michigan.¹

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