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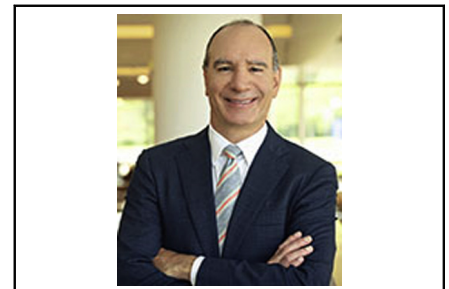


Commentary: Is it a long run for a short slide?

Matthew A. Romano, MD

The increase in intravenous drug use (IVDU), in no small part fueled by the opioid crisis, has resulted in a dramatic increase in valvular endocarditis. This has placed an incremental burden on the entire health care system, and one could argue that it is approaching epidemic proportions. Not surprisingly, there has been an exponential increase in surgical treatment for endocarditis, especially for tricuspid valve (TV) endocarditis due to IVDU. A recent analysis of the Society of Thoracic Surgeons database found a 500% increase in operations for TV endocarditis during a 5-year period.¹ When operative intervention is appropriate, the societal consensus guidelines advocate that valve repair is preferable whenever possible. The theoretical advantage of repair over replacement is minimizing prosthetic material, potentially decreasing recurrent infection, and improved survival. However, the majority of patients undergo TV replacement.

In this issue of the *Journal*, Atroshchenko and colleagues² present a very complex repair in a patient with TV endocarditis due to IVDU. Following extensive debridement, the anterior and septal leaflets were reconstructed with an equine pericardial patch. Gore-Tex neochoords were used to replace destroyed or resected native chords, and, finally, annular support was accomplished with an autologous pericardium annuloplasty band. The case presented here demonstrates the successful application of many of the tools in the preverbal tool box that we have available for reconstructive valve surgery. The end result was a competent TV with relatively little prosthetic material. These excellent results were sustained at 6 months of follow-up, with no significant tricuspid regurgitation or



Matthew A. Romano, MD

CENTRAL MESSAGE

Surgical treatment of tricuspid valve endocarditis due to IVDU can be complex. Numerous factors determine reparability. Treatment is challenging, and the reality is the valve, is not the disease.

recurrent infection. Despite such a laudable effort, the patient has unfortunately relapsed into IVDU.

The authors illustrate what can be accomplished with considerable effort and expertise. In the broader scope, given the advantages of reconstruction over replacement, repair should be the natural first choice. However, the feasibility of repair must be taken in the context of surgeon factors and patient factors. Clearly, the reparability demonstrated in this case report is not shared by all and is more reflective of a center of excellence. What is unknown is the durability of this type of repair with the extent of bileaflet and subvalvular involvement seen here. The data for complex endocarditis repair are somewhat limited. However, we may gain insight from degenerative mitral valve repair, as recurrence of regurgitation correlates with increasing complexity of the lesions and repair.³ Furthermore, multisegment involvement in mitral endocarditis has been shown to be associated with recurrent regurgitation.⁴ Ultimately, only time will provide us with the answer. What cannot be minimized is the natural history and challenges of this particular patient population. IVDU is an independent predictor of mortality in endocarditis. Recidivism is exceeding high, and sadly the patient presented in this report continues to succumb to IVDU. What is sobering is that survival for these patients is less than 50% at 5 years.⁵ This only further reinforces that the approach to this complex population must also address the behavioral and

From the Department of Cardiac Surgery, University of Michigan, Ann Arbor, Mich. Disclosures: The author reported no conflicts of interest.

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Address for reprints: Matthew A. Romano, MD, Department of Cardiac Surgery, University of Michigan, 5162 Frankel Cardiovascular Center, 1500 E Medical Center Dr, Ann Arbor, MI 48109-5864 (E-mail: maromano@med.umich.edu).

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psychosocial aspects, which ultimately may be the limiting factor.

The authors should be commended for the effort undertaken in advancing valve repair in a patient with very complicated TV endocarditis, and much can be learned from the technical aspects of the operation. Unfortunately, the patient's true disease is much more than tricuspid endocarditis. Hopefully, this will not be a long run for a short slide.

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