See Article page 1374.

Commentary: Tricuspid repair for mild regurgitation: Should you put a ring on it?

J. Hunter Mehaffey, MD, MSc, and
Robert B. Hawkins, MD, MSc

Management of concomitant tricuspid valve disease during cardiac surgery has long been debated. Our group has evaluated the outcomes of concomitant tricuspid valve repair (TVr) during aortic valve surgery and coronary artery bypass grafting and demonstrated no increased risk in patients with severe tricuspid valve regurgitation (TR).^{1,2} The 2020 American College of Cardiology/American Heart Association guidelines highlight level 2A recommendation for concomitant repair of TR in patients with progressive TR undergoing left-sided valve surgery.³ They go on to specify that risk factors for persistence or progression of TR include tricuspid annulus dilation, degree of right ventricular dysfunction or remodeling, leaflet tethering height, pulmonary artery hypertension, atrial fibrillation, and intra-annular right ventricle pacemaker or implantable cardioverter defibrillator leads based on retrospective data.³

In this month's edition of *Journal*, Kim and colleagues⁴ present a propensity-matched analysis of patients undergoing concomitant TVr for mild TR during mitral valve surgery for rheumatic disease. They are to be commended on this large homogeneous sample of 1208 patients from 2 referral centers in South Korea during an 18-year period. On multivariable analysis, the study reports there is no advantage of performing TVr, with no differences in recurrent significant TR, survival, or survival free of TR. Furthermore, the findings demonstrate the only significant

J. Hunter Mehaffey, MD, MSc, and Robert B. Hawkins, MD, MSc

CENTRAL MESSAGE

There is no benefit to tricuspid repair for mild regurgitation during mitral valve surgery for rheumatic disease; however, atrial fibrillation is a risk factor for progression of tricuspid disease.

multivariable predictor of recurrent severe TR was failure to perform the maze procedure in the presence of atrial fibrillation. These findings are in line with current evidence and contribute to the global experience of management of TR.

In conclusion, functional TR is common in the presence of mitral valve disease, particularly when there is rheumatic mitral valve involvement with some degree of stenosis. Isolated treatment of the mitral valve disease has proven to be insufficient to correct secondary TR, namely when there is severe TR or tricuspid annulus dilatation (>40 mm or 21 mm/m²).³ However, the authors demonstrate no benefit of TVr in patients with mild TR who underwent rheumatic mitral valve surgery.

References

1. Haywood N, Mehaffey JH, Chancellor WZ, Beller JP, Speir A, Quader M, et al. Burden of tricuspid regurgitation in patients undergoing coronary artery bypass grafting. *Ann Thorac Surg*. 2021;111:44-50.
2. Chancellor WZ, Mehaffey JH, Beller JP, Hawkins RB, Speir AM, Quader MA, et al. Impact of tricuspid regurgitation with and without repair during aortic valve replacement. *J Thorac Cardiovasc Surg*. 2020;165:1374-83.
3. Otto CM, Nishimura RA, Bonow RO, Carabello BA, Erwin JP III, Gentile F, et al. 2020 ACC/AHA guideline for the management of patients with valvular heart disease: a report of the American College of Cardiology/American Heart Association Joint Committee on clinical practice guidelines. *Circulation*. 2021;143:e72-227.
4. Kim WK, Kim SE, Yoo JS, Jung JH, Kim D-H, Kim JB, et al. Impact of valve repair on mild tricuspid insufficiency in rheumatic mitral surgery. *J Thorac Cardiovasc Surg*. 2023;165:1374-83.e7.

From the Division of Thoracic and Cardiovascular Surgery, University of Virginia, Charlottesville, Va.

Disclosures: The authors reported no conflicts of interest.

The *Journal* policy requires editors and reviewers to disclose conflicts of interest and to decline handling or reviewing manuscripts for which they may have a conflict of interest. The editors and reviewers of this article have no conflicts of interest.

Received for publication May 28, 2021; revisions received May 28, 2021; accepted for publication June 1, 2021; available ahead of print June 9, 2021.

Address for reprints: Robert B. Hawkins, MD, MSc, Department of Thoracic and Cardiovascular Surgery, University of Virginia, P.O. Box 800679, Charlottesville, VA 22908 (E-mail: rbh6x@virginia.edu).

J Thorac Cardiovasc Surg 2023;165:1384

0022-5223/\$36.00

Copyright © 2021 by The American Association for Thoracic Surgery

<https://doi.org/10.1016/j.jtcvs.2021.06.008>