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Commentary: Early surgery should be pursued for all severe regurgitant lesions

Alexander A. Brescia, MD, MSc, and Steven F. Bolling, MD, on behalf of the Michigan Mitral Research Group (MMRG)

Wang and colleagues¹ performed a single-center retrospective analysis of patients undergoing isolated tricuspid valve surgery for tricuspid regurgitation (TR) performed by 17 surgeons between 2004 and 2018 to compare mortality in patients with class I indications (severe symptomatic TR, $n = 115$) versus earlier surgery (asymptomatic TR with right ventricular dilation and/or dysfunction, $n = 44$). At a mean of 5 years, patients with class I indications, older patients, and those with diabetes were associated with higher mortality. These data led the authors to conclude that earlier surgery in patients with isolated TR may improve outcomes.

A key consideration in treating these patients and analyzing these data is patient selection. During a 15-year study period, 44 patients were selected to undergo surgery before meeting class I indications. Although these patients ultimately did better than those who became symptomatic, the challenge for surgeons is how to appropriately select these patients for early surgery and whether these findings are generalizable beyond Cleveland Clinic and other high-volume valve centers of excellence. While it may be reasonable to consider early surgery for asymptomatic patients with severe TR, referral centers may not see patients until they already meet class I indications. Alternatively, other centers may see candidates who are still asymptomatic, for whom surgery may be considered but do not necessarily reflect the group of 44 patients over 15 years analyzed in this study. Accordingly, these findings may not be generalizable.

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

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Address for reprints: Alexander A. Brescia, MD, MSc, Department of Cardiac Surgery, Frankel Cardiovascular Center, University of Michigan, 1500 E. Medical Center Dr, Ann Arbor, MI 48109 (E-mail: abrescia@med.umich.edu).

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Alexander A. Brescia, MD, MSc, and Steven F. Bolling, MD

CENTRAL MESSAGE

Due to the infrequency of tricuspid surgery, conclusions from single-center studies are limited. Nonetheless, it is reasonable to consider early surgery for patients with severe regurgitation.

However, we feel it is always reasonable to consider early surgery for patients with any severe regurgitant lesion. Whereas existing data are sparse and difficult to generate in high numbers for tricuspid valve surgery, the question of early surgery has been addressed for asymptomatic severe mitral regurgitation. Since all regurgitant lesions end up worsening, early surgery for symptomatic, severe mitral regurgitation specifically while the ejection fraction remains $>60\%$ has repeatedly been found to be beneficial.²⁻⁴

While this study addresses a thought-provoking clinical question, it remains difficult to draw any conclusions from the 44 patients undergoing early surgery performed by a total of 17 surgeons over a 15-year period. Since tricuspid surgery is so infrequent, larger databases may be more helpful in addressing the research question. Nonetheless, this contribution adds to a small body of literature on this topic, and we agree with the authors that early surgery should be pursued after considering the risks and benefits for each patient.

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