

Is redo mitral mortality getting better or getting worse?

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Abstract

Zubarevich et al. present the 30 day and 1-year outcomes of redo mitral valve replacement in 58 high-risk patients. The authors conclude that careful patient selection and risk stratification provides acceptable surgical results in this cohort. This series reminds us that increased use of bioprostheses, increased use of mitral replacement instead of repair, and an aging population drive the volume of high-risk redo mitral replacement. It remains to be seen whether redo mitral mortality is getting better or worse, but the risk and the patients will be with us for some time.

KEYWORDS

mitral valve, reoperation, valve surgery

Zubarevich et al.¹ present the 30 day and 1-year outcomes of redo mitral valve replacement in 58 high-risk patients. The authors conclude that while this procedure is inevitable for some indications, careful patient selection and risk stratification provide acceptable surgical results in this cohort.

This is not the first series of redo mitral replacement, nor is it one of the larger series. Much larger series of redo mitral replacement have been published, with conclusions generally that risk is increased over first-time surgery but that outcomes are acceptable in most patients.²

However, the series is timely. As mentioned by the authors, the volume of redo mitral replacement remains significant² and could even increase over time. This may be for several reasons. The percentage of mitral replacements being done with bioprostheses is increasing, even in younger patients.^{3,4} In addition, the percentage of mitral valves getting replaced is increasing.⁵ The durability of biological mitral prostheses remains limited despite nearly 50 years of incremental advances. The reasons for increasing biological valve usage may include a generalized move away from vitamin K antagonist anticoagulants toward novel oral anticoagulants. In addition, there is perpetual optimism that transcatheter valve in valve technology may allow the perpetual renewal of bioprostheses, even in younger patients. Yet, a transcatheter valve in valve mitral replacement remains limited to select patients with favorable anatomy, valve size, valve pathology, and so forth.⁶ Transcatheter valve in valve technology also suffers from unknown long term durability and the inherent

progressive prosthetic stenosis induced with each application of an additional device within the prior valve. Thus the volume of redo mitral replacement remains significant and could even increase over time.

This series is also timely in demonstrating that the mortality from redo mitral replacement remains significant in certain patients. The potential reasons are again many. First, additional high-risk patients may come to attention-seeking transcatheter alternatives for which they are not eligible or which may not be successful. Second, the age of redo mitral patients may increase, just as it is for all surgical patients. This series presents only selected high-risk patients, and the mortality for all redo mitral patients was not presented.

Thus, Zubarevich et al.¹ show that redo mitral replacement remains with us and may remain a challenge as a significantly risky procedure in some patients. This is despite and possibly driven in part by transcatheter technology and alternative anticoagulation. It remains to be seen whether redo mitral mortality is getting better or worse, but the risk and the patients will be with us for some time.

AUTHOR CONTRIBUTION

Donald D. Glower: Concept/design, Data analysis/interpretation, Drafting article, Critical revision of article, and Approval of article.

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