replacement²⁻⁴ (when anatomically feasible,⁵ an important caveat) than postrepair, a lower threshold for replacement appears reasonable in middle-aged patients with rheumatic mitral valve disease.

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Commentary: Rheumatic mitral repair: Just don't do it?

Patrick M. McCarthy, MD

Fortunately, rheumatic disease has greatly decreased in the United States and as noted by Brescia and colleagues¹ is different here than much of Asia with a preponderance of mitral stenosis (MS) or mixed disease. Of note, it generally occurs later in life as well, and the mean age in this report was 59 ± 14 years. The authors focus on the mobility of the anterior leaflet to decide if the mitral valve can be safely repaired, and they became more conservative during the second decade (repair decreased from 70% to 33%). The article compares outcomes in the 2 decades, but a question not addressed is if the success of repair with pure mitral regurgitation (MR) was different than for that with MS or mixed disease. Perhaps the results with pure MR are better and approximate the results outside of the United States that they discuss. If the valve leaflets have begun to calcify, then

Dr Patrick M. McCarthy, MD

CENTRAL MESSAGE

Early failure after rheumatic repair is not uncommon. The Michigan Medicine group became more cautious over time, and perhaps a subset of young patients with pure MR should be considered for repair.

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Disclosures: Dr McCarthy: Edwards Lifesciences: speaking fees and royalties; Medtronic and AtriCure: speaking fees; Abbott: Surgical primary investigator REPAIR-MR Trial.

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repair failure due to progressive calcification may be likely. Table 5 reports, for those with a known cause, 7 of 8 failed due to MS or mixed disease. Also, early failure was common. Reoperation was frequently within the first year or less than 5 years in all but 1 patient (who underwent reoperation at 6.5 years). Patient age is an important consideration that is not addressed as clearly as it should be. Bioprosthetic valve freedom from structural valve deterioration at 10 and 15 years is heterogeneous but approximately 84% to 93% and 61% to 81% depending on the valve type.² What lessons does this hold for the third decade? Mitral reoperation for bioprosthetic structural

valve deterioration likely will become less common as mitral valve-in-valve implants become the preferred approach for high-risk patients. For many patients, this appears to be a lower-risk procedure with acceptable early hemodynamic results.³ Time will tell, but hopefully a 59-year-old treated with a bioprosthetic valve may consider a valve-in-valve intervention 15 or more years later, and that second implant will last the rest of the patient's life span. Alternatively, for low-risk patients, a conventional reoperation still may be the best choice. With a mobile anterior leaflet and pure MR, maybe repair is the best answer, especially for younger patients. I intend to be very cautious and probably will not repair valves that are stenotic. A failed repair is less successfully treatable with a valve-in-ring

procedure at this time. Over the years, I've noticed that patients don't appreciate early repair failures.

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Commentary: To replace or not to replace? The big question and how to find the answer

Shwe OO, MBBS, MRCS,^a and
Vito D. Bruno, MD, PhD^b

In the latest issue of the *Journal*, Brescia and colleagues¹ have approached a delicate subject: replace or repair a rheumatic mitral valve (RMV)? For degenerative mitral valve disease, there is large evidence and overall consensus on the fact that valve repair is better than replacement. Certainly, every modern mitral valve surgeon approaches a degenerative mitral valve regurgitation with a repair in mind and would try to avoid a replacement in most of these valves. However, the treatment for RMV disease differs according to the pathology of the valve and even the geographic regions. Starting from

Shwe OO, MBBS, MRCS (left), and Vito D. Bruno, MD, PhD (right)

CENTRAL MESSAGE

Rheumatic mitral valves can be repaired, but only in selected cases and every detail counts.

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this background, the authors have retrospectively analyzed their data on RMV comparing 2 different eras with a primary composite outcome of death, reoperation, and severe valve dysfunction.¹ Their hypothesis is that a change in approach of the anterior leaflet (AL) had a significant impact on the results: indeed, around 2009 their surgical approach to RMV changed and included a systematic echocardiographic and intraoperative assessment specifically dedicated to the AL. This new approach altered the operative decision-making process,