Services, who fund the lifelong care of most of these patients in the United States, has mandated a heart-team that includes a surgeon and interventionalist for transcatheter aortic valve replacement.⁷ Perhaps the surest path to excellent and cost-effective care of mitral disease is through a similar Centers for Medicare and Medicaid Services coverage determination for mitral intervention, informed by exactly the high-quality dissemination research strategy proposed here by the Cardiothoracic Surgical Trials Network.

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See Article page 1504.

Commentary: Decoding transcatheter treatment of functional mitral regurgitation: The balancing act—where do we sit on the seesaw?

Heidi B. Nafday, MD, and Eugene A. Grossi, MD

The management of functional mitral regurgitation (fMR) poses the challenge of balancing the interaction of left ventricular dysfunction with remodeling, which results in valvular dysfunction. In some patients, slight changes in either direction can have significant effects: fluid volume reduction or inotropy can improve leaflet coaptation and eliminate the volume overload of fMR, whereas small amount of volume transgression can have the opposite effect, furthering functional deterioration in a vicious cycle. While elimination of the regurgitation without addressing the underlying cause cannot be expected to serve as a curative treatment, nevertheless, there may be a patient cohort who would greatly benefit from mechanical reduction of mitral regurgitation (MR). The COAPT (Cardiovascular Outcomes

Heidi B. Nafday, MD (left) and Eugene A. Grossi, MD (right)

CENTRAL MESSAGE

Management of mitral regurgitation requires judicious clinical decision-making. Balancing the risks and benefits of the MitraClip must be individualized to optimize its application.

Assessment of the MitraClip Percutaneous Therapy for Heart Failure Patients With Functional Mitral Regurgitation)¹ and MITRA-FR (Multicentre Study of Percutaneous Mitral Valve Repair MitraClip Device in Patients With Severe Secondary Mitral Regurgitation)² studies sought to compare goal-directed medical therapy (GDMT) with GDMT and a MitraClip in patients with fMR. In this issue of the *Journal*, interdisciplinary experts report from a workshop convened by the National Heart, Lung, and Blood Institute to parse the evidence and elucidate why COAPT investigators found benefit to the MitraClip whereas MITRA-FR did not.³

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Understanding the discordant results is important for adoption and reimbursement of this therapy.

Both COAPT¹ and MITRA-FR² represent landmark studies and are worthy of the thoughtful evaluation performed by the National Heart, Lung, and Blood Institute/Cardiothoracic Surgical Trials Network workshop. They are the first randomized controlled trials comparing GDMT with mechanical correction. Previous surgical trials, such as the Cardiothoracic Surgical Trials Network, have compared mitral valve repair and replacement for ischemic MR,⁴ but no randomized control trials have compared GDMT alone with surgical repair. There are several major issues discussed by the workshop—first, identification of patients with nuanced but significant differences in baseline MR and ventricular dimensions that existed between studied cohorts. Likewise, the intensity and supervision of GDMT was different between the 2 trials. Notably, when the COAPT patients were reassessed using MITRA-FR criteria, there was no difference in 2-year results for heart failure hospitalizations or death.

In this complex group of patients with heart failure and fMR, assessing the potential benefits or lack thereof must be done with caution to avoid dismissing a potentially useful therapy. In their evaluation of the COAPT and MITRA-FR trials, Gelijns and colleagues³ explore the differences in patient selection for therapies and demonstrate how this might explain the

seemingly disparate results. The authors highlight the need for a heart team approach in evaluating and selecting patients for the MitraClip and ongoing active management. MitraClip may not be a cure in itself but allows for uptitration of GDMT for better heart failure management. Moreover, patients whose left ventricles have the ability to reverse remodel may be more likely to have successful outcomes from the clip. The care of these patients, whether or not the MitraClip is appropriate, is resource intensive and requires life-long active management. By identifying those most likely to benefit, those who are not candidates can focus on optimizing medical treatments while avoiding the costs and potential risks of MitraClip placement.

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See Article page 1504.

Check for updates

Commentary: Clip it, clip it good

Tomasz A. Timek, MD, PhD

Treatment of secondary mitral regurgitation (MR) has generated considerable discussion and controversy among surgeons and cardiologists alike. Surgical repair of moderate¹ and severe² ischemic MR with ring annuloplasty has revealed suboptimal results fraught with high recurrence rates

Tomasz A. Timek, MD, PhD

CENTRAL MESSAGE

In highly selected patients with functional mitral regurgitation, interventional repair with the MitraClip (Abbott Laboratories, Santa Clara, Calif) and continued medical therapy provide a promising novel therapeutic option.

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