The authors reported no conflicts of interest.

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The use of subvalvular repair is associated with a significantly lower risk of exacerbating leaflet tethering caused by the anterior displacement of the posterior leaflet because of IPMD correction. This was more evident in patients with a lower LV end diastolic diameter (<60 mm) asymmetric tethering and a well-circumscribed infarct of the inferior myocardium. The papillary muscle approximation was not a significant effect modifier in 17% of patients with anterior myocardial infarctions and symmetrical patterns with predominantly severe apical tethering.⁵ Because the attrition rate of combined valvular and subvalvular surgery on asymmetric tethering, but not on symmetric tethering, increases with time, whether the clinical benefits seen at 5 years could increase with a longer follow-up period remains unknown.

Our recent meta-analysis highlighted the evidence of conflicting results between mitral repair surgery and the MitraClip procedure that adds a veil of mystery regarding the future of IMR treatment. The seemingly neglected importance of the subvalvular apparatus in this context may partially account for the poor results.

Francesco Nappi, MD^a

Sanjeet Singh Avtaar Singh, MRCS, PhD^b

^aDepartment of Cardiac Surgery

Centre Cardiologique du Nord de Saint-Denis
Paris, France

^bDepartment of Cardiothoracic Surgery

Golden Jubilee National Hospital
Glasgow, United Kingdom

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REPLY: CROSSING THE RUBICON— VENTRICULAR DIMENSION CONTROLS THE ULTIMATE FATE OF ISCHEMIC MITRAL REGURGITATION PROCEDURES

Reply to the Editor:

In 49 BC, Julius Caesar defied the Roman Senate's ultimatum. Rather than disbanding his army, he marched them south across the Rubicon in northern Italy, initiating the civil war that ended the republic. Likewise, there is a ventricular dimension, which when crossed, determines the fate of ischemic mitral regurgitation (MR) repairs. In their letter to the Editor, Nappi and Singh¹ address the complexity of this cardiac pathology.

There is a ventricular dimension after myocardial infarction (as yet not absolutely defined) in which the left ventricle (LV) geometry results in wall tensions where positive reverse remodeling after mitral repair is not possible. Rather, the unameliorated high wall strain in remote myocardium results in further injury to the LV. From the initial reports of Braun and colleagues² through outcomes of the Cardiothoracic Surgery Network severe ischemic MR trial,³ large ventricular volumes after infarct have been associated with recurrent MR and poor outcomes. LV reshaping strategies^{4,5} have shown promise by decreasing remote myocardial wall tension and perhaps inhibiting remote apoptosis.⁶ The fault is not in our stars, but in the dilated ventricle.

Heidi B. Nafday, MD

Eugene A. Grossi, MD

Department of Cardiothoracic Surgery

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NYU Langone Health
New York, NY

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REPLY: THE ISSUES TO ADDRESS WHEN REPAIRING ISCHEMIC MITRAL REGURGITATION

Reply to the Editor:

The optimal intervention for patients with moderate ischemic mitral regurgitation has been controversial. The letter by Nappi and colleagues¹ emphasizes the importance of optimal myocardial revascularization in addition to mitral valve repair using effective valvular and subvalvular techniques. The lack of predictable long-term outcomes of revascularization combined with mitral valve repair on the long-term outcomes have led to the impression highlighted by a randomized trial that, especially with severe ischemic mitral regurgitation, mitral valve replacement yields better results than mitral valve repair.² This serves to highlight the importance of optimal repair techniques as described by Nappi and colleagues and their references, especially the value of anterior leaflet augmentation, a technique highlighted first by Kincaid and colleagues³ for ischemic mitral regurgitation repair. The further clarification of the complex mechanisms causing

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ischemic mitral regurgitation and the importance of using valvular and subvalvular techniques combined with complete revascularization highlight the complexity that needs to be addressed to achieve effective surgical repair.

Vincent R. Conti, MD
Department of Surgery
University of Texas Medical Branch
Galveston, Tex

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REPLY: THE TRACK LESS TRAVELED: SUBVALVULAR TECHNIQUES AND ANTERIOR LEAFLET AUGMENTATION IN ISCHEMIC MITRAL

REGURGITATION

Reply to the Editor:

The points raised by Nappi and Singh in their recent insightful commentary about the surgical treatment of ischemic mitral regurgitation (IMR) are very timely.¹ Indeed, IMR is a disease of the left ventricle, and thus surgical repair of IMR should aim for postoperative left ventricular (LV) reverse remodeling; in its absence, mitral regurgitation (MR) can recur due to persistent LV dilation and leaflet tethering.² However, reverse remodeling can only occur with viable myocardium.² In patients with a large burden of nonviable myocardium, revascularization, although important, is likely futile in terms of substantial MR reduction, and durable mitral valve (MV) repair also is unlikely sustainable.³ Indeed, chordal-sparing MV replacement is a more suitable option in patients with severe