regurgitation after surgery,¹ the evaluation of valve competence after LVR might have allowed coaptation, leak detection, and repair.

A transventricular approach to the mitral valve has also been recommended, affording an easier mitral annulus exposition and a faster repair. Likewise, through the ventriculotomy a papillary muscle narrowing can be attempted.³ In our opinion, through a transventricular approach only a “blind” rebuilding of mitral-ventricle geometry is possible. Moreover, the ventriculotomy approach forces the surgeon to elementary procedures, such as a suture annuloplasty, whereas visual valve evaluation and intraoperative coaptation adjustments seems unfeasible.

We think that in the setting of such a long and demanding procedure the best strategy is a valuable issue. We actually prefer first to perform beating-heart (or on-pump if required) coronary artery bypass grafting, then complete LVR under cardioplegic arrest, and finally accomplish transatrial MVR.

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Reply to the Editor:

I appreciate the comments by Fundarò and colleagues. They ask an important question. They wish to know the order of procedures to deal with mitral regurgitation in patients who require left ventricular restoration. Clearly, left ventricular restoration does reduce the distance between the papillary muscles and potentially the tethering of the posterior papillary muscle on the mitral leaflets. Therefore, how much can be done through the ventricle, and what is the best approach overall?

We have continued to change our approach to this problem. We have noticed that ventricular reconstruction alone can deal with some of the issues that relate to tethering in patients with mild and possibly moderate mitral regurgitation. In contrast, we have not been able to find a consistent way to deal with annular dilatation through the ventriculotomy. As Fundarò and colleagues have stated, it would be difficult to judge how much needs to be done through the ventriculotomy. Therefore, in situations where there is moderate to severe mitral regurgitation, we would add a left atrial incision as well. The order is as Fundarò and colleagues have stated. We do the coronary revascularization first, followed by the left ventricular reconstruction. We then perform an atriotomy and place a mitral ring at that point. I think it is difficult to go off-pump, check the transesophageal echocardiography after rewarming, and then determine whether a ring needs to be placed. Rather, in the case of severe regurgitation we make that decision before the operation. We are currently searching for a predictable technique to place a ring through the ventricle, but thus far we have not come up with an approach. I appreciate the opportunity to respond to this excellent question by Fundarò and colleagues.

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