### Editorial Comment / Editoryal Yorum



# Resect or respect, but please repair

Rezeke et veya koru, fakat mutlaka onar

Belhhan Akpınar

Department of Cardiovascular Surgery, Florence Nightingale Hospital, İstanbul, Turkey

Mitral valve repair should have become the standard therapy for mitral regurgitation (MR) due to degenerative disease, but unfortunately this is not the case. Mitral valve replacement has been performed more frequently mostly due to the lack of experience with repair techniques.

Since its introduction, the techniques of mitral valve repair have been subjected to many modifications and improvements, leading to more predictable and reproducible methods. As there are many factors contributing to MR, there cannot be a single solution for every case and an individual approach should be adopted according to the pathology and the surgeon should be equipped with these techniques.

The authors should be congratulated on their excellent results with mitral valve repair in their series. This is a large series operated by a single surgeon and represents the evolution of valve repair techniques over time which makes the outcomes even more important. However, there are few points to be addressed.<sup>[1]</sup>

#### **Key points**

Isolated posterior leaflet prolapse is the most common pathology, and its repair is technically simple and well-standardized with excellent long-term results.

Anterior leaflet repair is more demanding, but the use of artificial chordae has made it feasible in the majority of cases.

Long-term studies with different types of rings strongly emphasize the need for annular support, but do not show the difference between the types of rings. Proper understanding of the pathology with transesophageal echocardiography (TEE) and three-dimensional (3D) echocardiography is essential. The surgeon should already have an idea of what he/she is going to do before seeing the valve intraoperatively.

A water test is helpful to visualize the repair, but should not be fully trusted. Intraoperative TEE or even 3D echocardiography is, therefore, essential.

This study supports the findings of other similar studies that, in patients with degenerative MR due to posterior or even bileaflet disease undergoing mitral valve repair, the results are excellent with low recurrence rates.<sup>[2]</sup>

In functional and rheumatic diseases, the feasibility of repair is lower.

Moderate early MR after operation is associated with higher rates of recurrence of MR, need for reoperation, and even death than in patients with none-to-trivial early postoperative MR.

Mitral valve reoperation was uncommon in this series. In a recent study by David, multivariate analysis revealed older age, complete heart block, not using an annuloplasty ring, and the degree of myxomatous degeneration of the mitral valve to be associated with recurrent MR.

Last, but not least, I agree with the authors that the individual surgeon volume is a determinant of not only mitral valve repair rate, but also freedom from reoperation and survival. There are many data supporting the notion of referral to experienced

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Correspondence: Belhhan Akpınar, MD. Florence Nightingale Hastanesi Kalp ve Damar Cerrahisi Kliniği, 34381 Şişli, İstanbul, Turkey.

Tel: +90 532 - 277 01 11 e-mail: belhanakpinar@gmail.com

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mitral surgeons to improve outcomes in valve repair. This is particularly important while intervening on asymptomatic patients that may end up with a replacement. A study conducted in New York, USA concluded that a cardiac surgeon should perform a minimum of 25 repairs annually to be qualified for repair and even this number may not be always sufficient.

Nevertheless, proper mitral valve repair should be encouraged, particularly in degenerative diseases. I believe that the future of young cardiac surgeons would depend on their ability to exercise different repair techniques. This should start with median sternotomy and only proceed with minimally invasive techniques after experience is gained.

In conclusion, a good repair is better than replacement and replacement is always better than a

bad repair. Never leave the operating table with an insufficient repair or a leaking valve.

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