

Survival versus symptom relief: the surgical dilemma in ischemic functional mitral regurgitation

Supervivencia frente a alivio de síntomas: el dilema quirúrgico en la insuficiencia mitral funcional isquémica

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The management of ischemic functional mitral regurgitation (FMR) continues to represent one of the most debated controversies in contemporary cardiovascular surgery. Few issues highlight so vividly the tension between pathophysiological understanding, surgical practice, and the need for rigorous evidence. In this issue, García-Villarreal presents an incisive analysis of the long-standing question: in patients with ischemic cardiomyopathy, is long-term survival determined primarily by revascularization through coronary artery bypass grafting (CABG), or can it be significantly modified by addressing the secondary lesion-functional mitral regurgitation?

CABG has long been established as a cornerstone of survival in patients with advanced coronary artery disease (CAD) and severe left ventricular dysfunction. The 2021 ACC/AHA/SCAI guidelines clearly confer a Class I recommendation for CABG in patients with multivessel CAD and left ventricular ejection fraction (LVEF) < 35%,¹ a position strongly reinforced by the 10-year outcomes of the STICHES trial, which demonstrated that CABG combined with medical therapy significantly reduced mortality and

cardiovascular hospitalizations compared with medical therapy alone.² These results leave little doubt that CABG is the fundamental driver of improved long-term outcomes in ischemic cardiomyopathy.

Yet, severe FMR itself carries profound prognostic weight. It is not a primary valvular disease but a marker of advanced ischemic remodeling, with annular dilation and papillary muscle displacement preventing effective leaflet coaptation.³ Left untreated, severe FMR imposes chronic volume overload on the failing ventricle, accelerating maladaptive remodeling and worsening prognosis. Observational data confirm that increasing FMR severity is directly associated with higher mortality and heart failure admissions, with grade IV patients experiencing less than 45% event-free survival at four years.⁴ The natural instinct of the surgeon is to correct what is visibly abnormal-but does this correction alter the trajectory of survival, or simply palliate symptoms?

Guideline recommendations reflect this uncertainty. The 2020 ACC/AHA guidelines on valvular heart disease confer a class IIa indication for mitral surgery in severe FMR during

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CABG,⁵ whereas the 2021 ESC/EACTS guidelines offer a stronger class I recommendation.⁶ Both acknowledge the prognostic burden of untreated FMR, but both also recognize the absence of consistent evidence for survival benefit.

Indeed, randomized and observational data repeatedly demonstrate that while concomitant mitral surgery reduces postoperative regurgitation and improves early functional class, it does not confer a long-term survival advantage. A large Cleveland Clinic study of nearly 400 patients with severe ischemic FMR found comparable 10-year survival between CABG alone and CABG plus annuloplasty, despite better postoperative valve competence in the latter group.⁷ Similarly, randomized trials in moderate FMR have shown durable MR reduction with concomitant repair, but no differences in survival or adverse events at two years.⁸ Whether in moderate or severe disease, concomitant mitral surgery improves MR grade and symptoms but does not independently improve long-term mortality.

The conclusion is sobering but clarifying. CABG directly addresses the ischemic substrate and drives survival. Mitral valve intervention addresses the consequence of ischemic remodeling, offering symptomatic relief and quality-of-life benefits, but not proven survival gain. As García-Villarreal has argued elsewhere,³ isolated mitral surgery in ventricular-type FMR occupies only a limited therapeutic role; its power lies in conjunction with revascularization, and even then, primarily for palliation rather than survival.

The challenge for surgeons and cardiologists is not merely technical—repair or replace—but conceptual: are we treating the cause, or the consequence? Precision requires discernment. In selected patients with severe symptomatic FMR, concomitant valve surgery may be justified; in others, the increased operative risk may outweigh unproven benefit. The emergence of transcatheter edge-to-edge repair⁵ may further shift this balance, providing regurgitation relief without the burden of prolonged cardiopulmonary bypass.

This editorial invites us to pause. The instinct to “do more” must yield to the discipline of evidence. CABG remains the anchor of survival in ischemic cardiomyopathy; mitral valve

surgery, in this context, is an adjunct—important, but not determinant. The art of cardiovascular surgery may ultimately lie not in correcting every lesion we see, but in discerning which correction truly changes the course of disease.

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