

Letters to the Editor

Optimal Medical Treatment: Is It the Worst Option in Multivessel Coronary Disease?**Tratamiento médico óptimo: ¿es la peor opción en la enfermedad coronaria multivaso?****To the Editor,**

I read with interest the editorial by Buchanan et al. reporting an appropriate comparison between revascularization strategies based on percutaneous coronary intervention vs aortocoronary revascularization surgery for multivessel coronary artery disease (CAD).¹ However, the potential value of a strategy based on optimal medical treatment (OMT) alone is covered only superficially, which can result in confusion among nonexperts. Thus, we believe some additional comments are needed.

Firstly, Buchanan et al. state that surgical aortocoronary revascularization is the gold standard therapy for patients with CAD.¹ However, strategies cannot be generalized because CAD patients are a highly heterogeneous group. According to European Guidelines on Stable Coronary Artery Disease, "in the event that a prognostic benefit of revascularization is not anticipated (ischaemia < 10% of the left ventricle), or that revascularization is technically not possible or potentially difficult, or would be high-risk, the patient should remain on OMT".² This recommendation has been supported by the results of clinical trials showing no differences between OMT and revascularization in low-risk subgroups in COURAGE,³ BARI-2D,⁴ and FAME-2⁵; or in a high-risk subgroup using a feasibility analysis in STICH.⁶ Thus, OMT may be the best option for extreme risk categories in CAD.

Secondly, Buchanan et al. state that aortocoronary revascularization surgery is superior to OMT; this affirmation is based on a meta-analysis published in 1994 that included studies from 1972 to 1984. At the time such studies were performed, modern drug alternatives were not available.¹ Clinical trials reporting "negative" results, such as BARI-2D⁴ and STICH,⁶ were published after this meta-analysis.

Moreover, the BARI-2D⁴ and STICH⁶ trials have shown some additional fine distinctions, such as a subanalysis showing the advantages of aortocoronary revascularization surgery over OMT alone; however, the proportion of arterial grafts used in these clinical trials could be very different from real world therapy, because most coronary revascularization grafts used in daily practice are based on saphenous vein grafts, except for those using the internal mammary or anterior descending artery.² Whereas estimations of 10-year patency for an internal mammary artery are about 88%, those for a vein graft may be just 25%.²

Another important consideration is that when the period of OMT has not been adequate, a more conservative approach must be chosen for decisions on revascularization.² What proportion of patients receives adequate OMT before revascularization?

In the BARI-2D, COURAGE, and FREEDOM trials, the proportions of diabetic patients who were nonsmokers after 2 years and who had also achieved their therapeutic goals for glycated hemoglobin, low density lipoproteins, and systolic blood pressure, were just 23%, 18%, and 8% respectively.⁷ Based on such evidence, no clinical trial on stable CAD appears to have reached even ¼ of the potential benefits of medical treatment.

The definition of OMT should include control of cardiovascular risk factors and not solely the use of cardioprotective drugs, which could decrease the prevalence of angina and the need for revascularization.

At a population level, more than 50% of the cardiovascular mortality reduction in recent years has been shown to result from risk factor control and from improved drug therapies.⁸

Some additional reasons to support OMT use in stable CAD are that it induces atheroma plaque regression, arteriogenesis and collateral circulation, and others.

In conclusion, OMT can be the best option for extreme risk categories, patients with CAD usually receive a surgical revascularization without prior control of risk factors, no clinical trial has adequately analyzed OMT, and the definition of OMT definition requires modification.

Despite recent advances in revascularization,^{1,9} there are multiple reasons to support the alternative of providing OMT alone for the initial management of patients with a presumptive or confirmed diagnosis of CAD.

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