Correspondence


To the Editor:

Webb et al described the flow response to endothelial acting agents in their study on radial artery and saphenous vein grafts.1 The superiority of radial artery over saphenous vein grafts is well supported by these blood flow changes in addition to diameter changes, which have been shown in multiple other studies. Some additional clarifications might be of great help in extrapolating the results for our daily practice. Because it is well known that hypertension increases the shear forces that damage endothelium and the effect of fibrosis/remodeling on vessel wall by the rennin angiotensin system,2 the authors could explain why hypertension was excluded from their study. In addition, most of my patients with a history of bypass surgery have hypertension, and evading hypertension is difficult, because the medications that are used in coronary artery disease indirectly reduce/influence blood pressure. It would have been more beneficial if hypertension had not been removed from their inclusion criteria. What vasoactive medications were stopped, and in which subsets of patients before the procedure, because they might influence the endothelial responses seen in the study?

Interestingly, nitrates should have more effect on the veins than on the arteries because of their anatomic characteristics. Lack of response in veins to nitrates could be explained by the structural changes that take place in these grafts, as influenced by the various factors that are set forth in the study’s discussion. Loss of endothelial function, as explained by this study, also explains the reason for the increased incidence of thrombosis/occlusion of the venous grafts over time. It is also interesting to know that the saphenous graft is working at maximal dilation, and the radial artery graft can be expanded with medications.

In addition to 3-month and 5-year intervals, it would be beneficial for the authors to provide the data on these patients at the 10-year interval, which is an important set point for a graft’s life.

Disclosures

None.

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References

Letter by Doraiswamy Regarding Article, "Vascular Reactivity and Flow Characteristics of Radial Artery and Long Saphenous Vein Coronary Bypass Grafts: A 5-Year Follow-Up"

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