APPLES REMAIN
APPLES NO
MATTER WHAT

Reply to the Editor:

Drs Dashwood and Loesch contributed their insightful comments to the debate of graft choice in coronary artery bypass grafting (CABG). In their letter to the editor titled, “Arterial Versus Venous Conduits in Coronary Bypass Surgery: Comparing Apples With Oranges,” they point out several considerations that may be important in relation to the harvest technique of a saphenous vein graft (SVG) (no-touch and nondistended) and argue that the results of the Radial Artery Database International Alliance (RADIAL) investigator trial were actually biased by not including 1 available additional controlled randomized trial. This omitted trial revealed that the no-touch SVG had superior patency to the radial artery (RA) after 3 years of follow-up. It appears that by adding this randomized trial to the other 5 trials with the protocol-driven angiography included in the RADIAL trial, the difference in risk of graft occlusion between the RA and the SVG would disperse. Furthermore, and interestingly, it appears that the only trial employing the no-touch SVG harvest technique, which was accepted to be included in the RADIAL trial, reported a similar patency rate of the SVG to the RA. It is difficult to ignore those arguments, especially after the recent publication by Gaudino and colleagues of a large meta-analysis comparing the RA with the SVG, and with the inclusion of the RADIAL investigator randomized trials. This meta-analysis revealed the unexplained superior survival at 6.6 years of the RA compared with the SVG group, with no difference in the rates of myocardial infarction or repeat revascularization. This is in complete contrast with the RADIAL investigator trial results.

Dashwood and Loesch, although currently being commended for their persistency, should be careful with their enthusiasm. Stating that “an atraumatic, no-touch technique of harvesting the saphenous vein provides an improved graft with a long-term patency comparable to the internal thoracic artery at 16 years,” based on an anecdotal, small, single-center observational cohort trial (of the original 168 patients, 71 were lost to follow-up, including 34 who died of unknown reasons) that suffered from major design and statistical shortcomings, is unacceptable.

Recently, there have been many efforts to shift coronary practice back to the days of Favaloro, 50 years ago, with the frequent use of SVG: Endoscopic vein harvest, to provide improved cosmetic outcome (perhaps in the price of reduced patency and survival?), new SVG wrapping devices to prevent vein graft dilatation and improve patency, and many other additional efforts to preserve “the art of saphenous vein grafting” (These authors should be commended for aiming to use bilateral internal thoracic artery [ITA] routinely.)

All the aforementioned efforts ignore the simple fact that an apple will remain an apple (Figure 1) no matter how you peel it, and an SVG will never become an arterial graft. Obviously, it is beyond the scope of this letter to detail the well-known pathophysiology of SVG failure and the physiologic and morphologic data for ITA patency. The argument that saphenous veins are still the “main horsepower” for CABG, as if this would be predestination and would only require improvement, is futile. This can be changed if decisions would be based on critical analyses and hard data. As I recall, when participation in the Randomized comparison of the clinical Outcome of single versus Multiple Arterial grafts (ROMA) trial was proposed to Mayo Clinic, Dr Richard Daly, one of my mentors, asked me (exact quote): “What group would be randomized (for whom there would be reasonable equipoise)? If I think a patient is a candidate for multiarterial CABG, I would want to do it, and not risk him with left ITA/SVG in randomization, as it is hard to deny the data that we have.”

It needs to be clear that some medical centers around the world are beyond the turning point with regard to the use of multiarterial grafting. As the recent arguments of a “steep learning curve” and “unique results in certain hands” are...
more frequently used in relation to coronary surgery techniques, and with all the respect and empowerment of randomized trials, it seems to be "nonscientific" to ignore the mounting hard data on the advantages of multiarterial grafting.

Favaloro stated in an editorial published 47 years ago: "Generally, editorials are written to present personal views on a specific subject. With few exceptions, they seldom add to scientific knowledge. Usually, the author is more occupied with flaunting his rhetoric and literary style than in concentrating on basic facts." We should sincerely question ourselves if this still applies only to editorials and if used for rhetoric purposes only.

Chaim Locker, MD
Department of Cardiovascular Surgery
Mayo Clinic
Rochester, Minn

References