Comments regarding ‘Predictive Risk Factors for Restenosis after Remote Superficial Femoral Artery Endarterectomy’

J.R. Schneider*

Vascular and Interventional Program of Central DuPage Hospital, 25 North Winfield Road, Northwestern University, Winfield, IL 60190, USA

Submitted 3 March 2010; accepted 3 March 2010
Available online 25 March 2010

Dr. Derksen and colleagues have presented an interesting analysis from the large experience with RSFAE in the Netherlands. Eighty percent of subjects were claudicants. Indication for operation was not an independent predictor of primary patency as was the case in their previous publication1 discrepant from results of bypass, which are clearly better in claudicants than in critical limb ischemia. Furthermore, it appears that 14 subjects returned with critical ischemia, presumably with thrombosis of the previously treated SFA. Presumably some of these patients were initially treated for claudication and were, therefore, “worse” when the SFA thrombosed. This is generally not observed early after bypass, i.e., claudicants generally revert to claudication, not critical ischemia when a femoropopliteal bypass fails early. This observation suggests that one should likely be more reluctant to recommend RSFAE in claudicants, at least in those with smaller arteries or longer period of symptoms based on the results of the current study.

More than half of the subjects suffered stenosis of 50% or worse and secondary patency was 61% at one year, similar to the authors’ results in a randomized trial (REVAS)1 of RSFAE vs. prosthetic bypass. This is certainly lower than one expects in modern series of femoropopliteal bypass even with prosthetic grafts. For example, in a recent randomized comparison of ePTFE femoropopliteal bypass and Viabahn stent grafting2 the secondary patency of prosthetic bypass was 84% at one year in a group with about 70% claudicants. However, despite randomization in REVAS, the bypass group had more diseased outflow. Patency is dependent on outflow and other patient characteristics and thus, it is possible that this affected results. A larger study might show that bypass even with prosthetic material still provides better patency than RSFAE.

There is no immediately apparent explanation for the observation that patency is worse as age increases and this is contrary to the observations with bypass where patency actually seems better in older patients. This is clearly the largest published experience in RSFAE and we will all be anxious to see whether this observation is reproduced by others. The observation that vessel diameter is predictive of results is certainly consistent with our approach, i.e., we are reluctant to use RSFAE (or prosthetic bypass) when the distal reconstituted popliteal artery is small. The observation that duration of symptoms was associated with poorer patency after RSFAE is to my knowledge unprecedented in the literature of bypass. The proposed explanation, essentially that the SFA may shrink over time when occluded, is plausible. As the authors’ dataset increases in number of subjects and others adopt and report results with RSFAE, such an explanation would be supported if multivariate analysis showed duration of symptoms to be an

DOI of original article: 10.1016/j.ejvess.2010.01.015.
* Tel.: +1 630 933 4487; fax: +1 630 933 2009.
E-mail address: joe_schneider@cdh.org

1078-5884/$36 © 2010 European Society for Vascular Surgery. Published by Elsevier Ltd. All rights reserved.
doi:10.1016/j.ejvess.2010.03.002
independent predictor of plaque perimeter and artery diameter. However, this would, as the authors suggest, imply that bypass should be favored as duration of symptoms increases.

RSFAE has an important role in patients with symptomatic SFA disease. I congratulate the authors on their review of "all comers" of the largest experience with RSFAE and the guidance that their observations provide for patient selection. We continue to recommend vein bypass for patients with TASC C and D disease of the SFA and clear indications for intervention and the authors appear to subscribe to this view as well, but we must consider endovascular treatment, prosthetic bypass, and RSFAE for such patients. As is always the case, choosing the right intervention (if any) for the patient provides superior results. The authors have provided intriguing evidence that in the absence of autologous vein conduit for bypass, younger patients with shorter duration of symptoms and larger arteries should be strongly considered for RSFAE.

References