Carotid Angioplasty With Stenting and Carotid Endarterectomy for High-Risk Patients

To the Editor:

I have read with interest the article by Fox et al with regard to carotid angioplasty and stenting. I feel that the article might be a further contribution toward evaluating this procedure. Despite the limited experience on 42 cases of symptomatic carotid stenosis, the article is important particularly because it shows the long-term results of carotid angioplasty and stenting, and the effectiveness of the procedure as compared with conservative treatment.

Moreover, the article suggests some other concerns about carotid angioplasty.

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I would like to focus on indications for the technique. With regard to this point, the study by Fox et al suggests using carotid angioplasty on poor surgical candidates, including those with concomitant morbidities, restenosis, stenosis after cervical irradiation, and anatomic characteristics of the carotid stenosis.

From this point of view, carotid angioplasty is an alternative to carotid endarterectomy, and the two should be compared. In comparing these procedures, we have to take into account the current results of carotid endarterectomy. I agree with Fox et al regarding a preference for carotid angioplasty postirradiation stenosis, restenosis, and anatomic characteristics (stenosis involving distal extracranial internal carotid artery, etc.). With regard to the subgroup of patients with comorbidities, I feel that some caution is needed when considering carotid angioplasty. In the report by Fox et al, carotid angioplasty was followed by important complications in 4/42 (9.5%) cases. Carotid endarterectomy can be carried out without noninvasive diagnostics (duplex scanning and, in some cases, angio-CT or angio-MRI) under local anesthesia. This avoids complications caused by arteriography, which is necessary for carotid angioplasty. In the report by Fox et al, carotid angioplasty was followed by important complications in 4/42 (9.5%) cases.

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Response

We appreciate the comments of Dr Lucertini. Our preliminary data provide support for the use of angioplasty and stenting over best medical therapy for patients with symptomatic carotid stenosis who are poor surgical candidates.1 We recognize that one major difficulty with the interpretation of our data is that the definition of a poor surgical candidate is multi-factorial and problematic. Furthermore, this definition will vary among physicians. Consequently, it is not possible to compare data from case series of “high-risk” patients and arrive at firm conclusions regarding the relative roles of angioplasty and surgery in this poorly defined population. At present, patients who are good surgical candidates should undergo surgical endarterectomy, given the strong evidence for stroke risk reduction and durability from NASCET and ECST.2,3 The role of angioplasty and stenting for patients who are good surgical candidates will be determined by randomized clinical trials. The data from the CAVATAS and as yet unpublished SAPPHIRE trials are promising but not yet conclusive.4 Angioplasty and stenting should be considered as an option for symptomatic patients in whom surgical endarterectomy is considered to be either very high-risk or not possible.

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11. European Carotid Surgery Trials’ Collaborative Group. MRC European carotid surgical trial: interim results for symptomatic patients with severe (70%–99%) or mild (0%–29%) carotid stenosis. Lancet. 1991;337:1235–1243.


