Carotid Endarterectomy: A Continuing Cause for Concern

Background

Mark L. Dyken, MD

A editorial appeared in this journal in 1984 "expressing concern" about the uncertainties surrounding the use of carotid endarterectomy. The authors stressed that treatment strategies, whether medical or surgical, if they are based on nothing more than evaluations of a large series of individual case reports without controls, are no longer compatible with the demands of modern scientific methods. The authors expressed concern about the apparently narrow differences between the perceived threat of symptomatic or asymptomatic carotid lesions and the risk of the operation as portrayed in large community surveys.

In the years since then, three major trials have been addressing the benefit of endarterectomy in symptomatic patients with carotid stenosis. And three have been designed and are examining the role of this surgery in asymptomatic patients.

Last year, two of the major studies of symptomatic patients almost simultaneously reported electrifying results. Both the North American Symptomatic Carotid Endarterectomy Trial (NASCET) and the European Carotid Surgery Trial (ECST) presented convincing evidence that symptomatic patients with severe (70-99%) stenosis are much less likely to suffer stroke in the territory of that artery following an endarterectomy performed by a surgeon who has a low complication rate. In addition, the ECST demonstrated no benefit from endarterectomy for arteries with less than 30% stenosis.

The medical community now has firm scientific evidence for the indication or contraindication for carotid endarterectomy in symptomatic patients with 70-99% and 0-29% stenosis. Those of us who believe in the scientific method were convinced that the excitement of these results would accelerate the input of patients into the ongoing Asymptomatic Carotid Atherosclerosis Study (ACAS) and into the continuing studies of symptomatic patients with 30-69% stenosis. We believed that in the very near future, the indications for carotid endarterectomy would be known for all groups. It is shocking to learn that this has not occurred. In fact, patient accrual has decreased.

Naive clinicians may have inappropriately extrapolated the results of these studies to all patients. Now that the "bright light at the end of the tunnel" is in sight, it would be a tragedy if we do not reach it.

For these reasons, the editors of Stroke have asked representatives of the two major North American trials to prepare the following editorials.

References

3. European Carotid Surgery Trialists' Collaborative Group: MRC European Surgery Trial: Interim results for symptomatic patients with severe (70-99%) or with mild (0-29%) carotid stenosis. Lancet 1991;337:1235-1243
Carotid endarterectomy: a continuing cause for concern. Background.
M L Dyken

Stroke. 1992;23:1047
doi: 10.1161/01.STR.23.8.1047

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://stroke.ahajournals.org/content/23/8/1047.citation