Surgical or Medical Management for Asymptomatic Carotid Stenosis

To the Editor:

We read with interest the article by Woo et al published in the May issue of Stroke.1 The authors have studied the contemporary results of carotid endarterectomy (CEA) for 5009 asymptomatic carotid stenosis (ACS) identified in the National Surgical Quality Improvement Program database. They have found that the perioperative stroke, death, and myocardial infarction outcome rates are 0.96%, 0.56%, and 0.22%, respectively. The authors have combined the 0.96% perioperative stroke rates with the 5-year stroke risk after CEA from the Asymptomatic Carotid Surgery Trial2 and have found that the annual stroke rate is approximately 1%. They have concluded that the contemporary stroke rates with CEA are similar with the best medical management for ACS from the Second Manifestations of Arterial Disease Study, that is, 0.8% annual risk of stroke,3 although only 63% of the patients have taken antiplatelet drugs and 45% have taken lipid-lowering agents. The authors have also pointed out that the contemporary outcomes of CEA are nearly identical to those published 15 years ago.4

However, this study has several limitations. The authors have compared the results from studies, which include different patient populations with ACS. No data are given on the medical management, on the degree of the preoperative carotid stenosis, and on the contralateral internal carotid artery. Neuroimaging is not performed and no information is available on the type of strokes, ischemic or hemorrhagic.

The published studies, including this of the authors, have found that the absolute benefit of CEA is small. On the other hand, several publications have shown that the antihypertensive treatment with angiotensin-converting enzyme inhibitors5 or calcium channel blockers6 and statins7 have a significant effect in slowing the progression of the carotid artery atherosclerosis. Data have emerged that the combination of calcium channel blocker and statin may increase their antiatherosclerotic potential.8 Besides, natural history studies, using ultrasonography, have reported not only a progression, but also a regression of the ACS.9 A regression of severe carotid stenosis has also been observed using cerebral angiography.10

Taken together, these data suggest that the medical management is the best option for ACS. However, CEA could be considered in highly selected patients, especially in those with ACS progression despite medical management. Plaque morphology should also be taken into account. Obviously, ACS management requires an individual approach and a new trial comparing CEA with appropriate medical management will probably not contribute to settle this issue.

Disclosures

None.

Dimitar Ivanov Hadjiev, MD, PhD, DMSc
Medical University
Sofia, Bulgaria

Petya Pencheva Mineva, MD, PhD
Thracian University
Stara Zagora, Bulgaria

References

Surgical or Medical Management for Asymptomatic Carotid Stenosis
Dimiter Ivanov Hadjieev and Petya Pencheva Mineva

*Stroke*. 2010;41:e604; originally published online October 28, 2010;
doi: 10.1161/STROKEAHA.110.591289
*Stroke* is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 2010 American Heart Association, Inc. All rights reserved.
Print ISSN: 0039-2499. Online ISSN: 1524-4628

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/41/12/e604