

SYMPOSIUM: CONTROVERSIES IN CEREBROVASCULAR DISEASE

1. INTRODUCTION

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It is likely that no surgical procedure has been as thoroughly and critically examined as carotid endarterectomy for atherosclerotic occlusive disease of the carotid bifurcation. Although the procedure has been carried out for 3 decades, a number of recent, large studies have more clearly defined its role in the treatment of patients with carotid stenosis and in the prevention of ischemic stroke.

The North American Symptomatic Carotid Endarterectomy Trial (NASCET) and the European Carotid Surgery Trial (ECST) were large, randomized clinical trials that compared medical and surgical treatment of patients with symptomatic carotid stenosis (recent transient ischemic attack or minor stroke).^{1,2} Both trials clearly showed a benefit in favour of carotid endarterectomy in patients with severe stenosis of the carotid artery. With these results, we now have a better idea of the appropriate use of carotid endarterectomy in this patient group, and these studies have placed the use of this procedure on a firm scientific foundation.

Similarly, the Asymptomatic Carotid Atherosclerosis Study (ACAS) compared medical and surgical treatment for patients with severe asymptomatic carotid stenosis.³ This randomized clin-

ical trial also showed a beneficial effect of carotid endarterectomy, although it was not as strong as for symptomatic patients.

Although these large studies and others have further defined the role of carotid endarterectomy for cerebrovascular disease, like all good studies they have also raised additional questions. The symposium "Controversies in Cerebrovascular Diseases," held by the Canadian Society for Vascular Surgery at its annual meeting in 1996 and published here, addressed several of these important issues.

Dr. Andrew Hill (page 208) examines the question of who should be screened for asymptomatic carotid disease and how it should be done, as the benefit of carotid endarterectomy in patients with severe carotid stenosis is now proven. However, Dr. Hill's conclusions contain a note of caution regarding the current enthusiasm for widespread use of carotid endarterectomy in patients with asymptomatic disease.

Dr. Paul Walker (page 214), who was the principal surgical investigator for NASCET, explores the current indications for the use of carotid endarterectomy and reflects on how these guidelines developed.

Dr. Randy Guzman (page 218) addresses the appropriate use of imaging

techniques to assess carotid artery stenosis. In summary, there appears to be a general trend toward noninvasive imaging and away from angiography in assessing these patients, a direction that seems well justified.

The key to decreasing the incidence of ischemic stroke with the use of carotid endarterectomy is to minimize perioperative risks. Drs. James McKinsey and Bruce Gewertz (page 224) examine the technical factors involved in performing the "perfect" carotid endarterectomy and provide many helpful surgical hints.

The Canadian Society for Vascular Surgery hopes that the proceedings of this symposium on controversies in cerebrovascular disease will help to further the understanding of these new findings regarding the role of carotid endarterectomy in the prevention of ischemic stroke.

References

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2. MRC European Carotid Surgery Trial: interim results for symptomatic patients with severe (70–99%) or with mild (0–29%) stenosis. European Carotid Surgery Trialists' Collaborative Group [see comments]. *Lancet* 1991;337(8752):1235-43. Comments in: *Lancet* 1991;337(8752):1255-6; *Lancet* 1991;337(8757):1600-1; *Lancet* 1994;344(8914):69.
3. Endarterectomy for asymptomatic carotid stenosis. Executive Committee for the Asymptomatic Carotid Atherosclerosis Study [see comments]. *JAMA* 1995;273(18):1421-8. Comments in: *JAMA* 1995;273(18):1459-61; *ACP J Club* 1995;123(1):2-3; *JAMA* 1995;274(19):1505-7.

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