Regarding “Cerebral hyperperfusion syndrome after carotid endarterectomy: Predictive factors and hemodynamic changes”

Increased recognition of cerebral hyperperfusion as responsible for postendarterectomy neurologic complications is welcome because many of our nonvascular surgical colleagues are unfamiliar with this problem. Although cerebral hemorrhage is the most dramatic manifestation, with a minority of affected patients making a full recovery in reported series, seizures can also result in significant morbidity, as was noted by the authors. I believe, however, that a distinction can be made between these complications in terms of outcome.

I have seen eight patients with postendarterectomy seizures over an 18-year period encompassing more than 2000 endarterectomy procedures. In five patients these were focal motor seizures that lasted 30 minutes to 24 hours. These patients all had an uneventful recovery. In three patients initial focal motor seizures soon became generalized, and endotracheal intubation was necessary for airway protection in the postictal state or to control the seizures themselves. These patients all had a prolonged subsequent course, with only partial recovery. Preoperatively, all eight patients had greater than 80% internal carotid artery stenosis. No abnormalities were identified at the endarterectomy site on Doppler scans obtained at the time of the seizure episodes, and in five patients angiograms confirmed the Doppler scan findings. None of these patients had previously undergone contralateral endarterectomy, as did the patients reported by Ascher and colleagues.

Although increased recognition of hyperperfusion syndrome is desirable, I believe that at present this complication of carotid endarterectomy remains unpreventable. It is hoped that multicenter studies can accrue a larger group of patients will provide further understanding of this problem.

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REFERENCES

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Reply

We thank Dr Semel for his comments and agree that much needs to be learned about cerebral hyperperfusion syndrome. As mentioned in our article, we also agree that a large, prospective, multicenter study may provide further clarification regarding prevention of this syndrome.

Dr Semel’s experience is similar to ours. He observed an approximately 0.4% (eight patients) incidence of seizures in his patients, compared with 0.7% (three patients) in our study. None of his patients with seizures had previously undergone contralateral carotid endarterectomy; only one patient in our series had undergone bilateral endarterectomy within 3 months (3 days). The difference between the two series is not statistically significant. In addition, two of three patients in our experience had greater than 80% ipsilateral carotid artery stenosis, versus eight of eight patients in Semel’s series. This difference is also not statistically significant. We wonder whether Dr Semel’s data would support our conclusion that a short interval (≤3 months) between bilateral endarterectomy procedures is a predisposing factor for cerebral hyperperfusion syndrome if all neurologic manifestations of this syndrome are included rather than limiting the analysis to seizures only.

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Business-related knowledge base of vascular surgeons

The main focus of all regional and national vascular societies has been to provide scientific knowledge to their members. As the economics of health care changes, the need for members to become better educated about the financial aspects of their practice has grown. There is little information in the vascular literature and business journals about the state of knowledge regarding business-related issues in the vascular community.

All members of the Midwestern Vascular Surgical Society were surveyed to assess their knowledge base of 11 business-related topics, and faxed their completed questionnaire. They were asked to rate their knowledge base in each category as 0 (none), 1 (some), or 2 (complete). Each respondent could therefore score a maximum of 22 points. After 4 weeks, e-mails were sent to 201 members, asking them to respond if they had not replied to the survey. A total of 133 respondents sent in completed surveys.

Scores ranged from 0 to 22 (mean, 7.78; median, 7.0), with 8 members scoring 0 in each category and no members scoring a perfect 22. In descending order, members of the Society rated their knowledge of business topics as being weakest in the following areas: antitrust laws, tools for evaluating purchases, fraud and abuse regulations, financial accounting principles, economics of health care, marketing and promoting a practice, understanding budgets, understanding financial markets, time value of money, risk and return on investments, and decision-making skills.

It can be concluded that members of the Society, in general, do not believe they have sufficient knowledge about the business aspects of health care. If their perception is accurate, they are probably not equipped to make financial decisions based on sound business principles. Vascular societies should make an effort to provide education in these areas to help their members better deal with the economic aspects of their practices.

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