References

Short-term Results of Carotid Endarterectomy

To the Editor:

In their report on carotid endarterectomy in a community-based teaching hospital, Friedmann et al suggest that the ‘‘combined mortality/major neurologic morbidity’’ risk of 3.2% was somehow a function of where the surgery was performed and by whom. There are, however, other plausible explanations.

Members of the study cohort may have been different from patients who undergo surgery at other hospitals. Friedmann et al do not describe the neurological histories and baseline features of their patients in sufficient detail to allow readers to test this possibility. What symptoms were being diagnosed as transient ischemia? What angiographic findings were leading to surgery? What was the prevalence of cardiac comorbidity?

These are all clinical features that are necessary to explain to patients who undergo surgery at other hospitals. Friedmann et al state only the age and sex of their patients, the indications for endarterectomy, and on what side of the neck the surgery was performed.

Research methods can have a profound effect on outcome, yet Friedmann et al do not describe their methods. They do not describe the study design (i.e., retrospective versus prospective), the sources of data, or the mechanism for obtaining data, and they do not explicitly define their end points. We believe that this is a retrospective study. If such is the case, it is important to know who was the chart extractor, if the extractor was blinded to the study purpose, and what that extractor coded as a perioperative event. Other features of the research not mentioned by the authors are length of follow-up (how are they defining the perioperative period?) and any missing information.

Friedmann et al have presented a study of short-term prognosis among patients selected for carotid surgery without adhering to scientific standards for such investigations.2-4

This study will be of value to patients at Baystate Medical Center who are deciding whether to accept the risk of an unproven therapy administered in their own institution. For investigators, surgeons, and patients in other institutions, however, this paper will be difficult to interpret. Lacking more information about the assembly of the cohort, the baseline features of members of the cohort, the surgery, and the research design, it is impossible to understand how the authors got the results they published or how these results compare with research at other institutions.

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References

The following is in reply:

To the Editor:

We wish to thank Dr. Kerman for his comments and to reply to his questions.

The main goal of our study was to review the short-term results of carotid endarterectomy in a community-based teaching hospital. The study cohort was defined as those patients undergoing carotid endarterectomy at our institution between 1971 and 1986 and does not represent all patients with carotid artery disease.

Transient ischemic attack was defined as a focal neurologic deficit lasting <24 hours with full recovery. A perioperative stroke was defined as a cerebrovascular accident resulting in a fixed neurologic deficit occurring within 30 days after surgery. Angiographic findings were recorded, but their impact on the decision to operate was not assessed in the study. The prevalence of cardiac comorbidity was outlined in Table 3 and in the accompanying text.

The study design was a retrospective cohort, and the data were retrieved from the hospital charts. Since this was a descriptive study rather than an experimental design with a specific hypothesis to be tested, we did not consider it necessary to have blinded data collectors. However, other than knowing that this was a study of carotid endarterectomies, the data collectors were unaware of any specific goals of the study.

The length of follow-up was limited, as stated in the paper, to the perioperative period. By convention, perioperative mortality or morbidity was defined as that occurring within 30 days after surgery.

We are now in the process of analyzing the long-term results of carotid endarterectomy in the same patient population with regard to neurologic morbidity and mortality.

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Clinical Relevance of Stroke Models

To the Editor:

The insightful editorial by Molinari1 begins to shed light on a fundamental question in cerebrovascular research. As he stated, many therapeutic developments have shown great promise in the laboratory only to be found to have insignificant effects in clinical trials. Unfortunately, his conclusions and proposed solution to this problem are scientifically unsound in several ways.

Dr. Molinari proposes to solve the problem of clinical failure of treatments for stroke by measuring a nonclinical variable, namely, lesion size. It is indeed quite reasonable to assume that the preservation of tissue is better than its destruction. However, mere preservation of tissue, no matter how clear on imaging studies, cannot bring vision to amaurotic hemifields, make a parietic arm move, or restore speech to the aphasic. Measurement of comparative neuropathology in humans, although interesting in itself, is not directly relevant to the treatment of...
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_Stroke_. 1989;20:699
doi: 10.1161/01.STR.20.5.699.a
_Stroke_ is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
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Print ISSN: 0039-2499. Online ISSN: 1524-4628

The online version of this article, along with updated information and services, is located on the
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