

Editorials

INTERNET-ONLY PUBLICATION

THIS week the *Journal's* table of contents lists one title that is on our Web site but does not appear in the print version. The *Journal's* first Web-only Image in Clinical Medicine, "A Hair-on-End Skull,"¹ can be found at <http://www.nejm.org>. We plan to release about one Image in Clinical Medicine per month as a featured, Web-only publication. This Web-only feature is free and available to all visitors to the site. The Internet offers journals an opportunity to publish additional articles and other features without having to expand the size of their printed editions. For example, some of our articles already include supplementary material available only on the Web. Such supplementary material is carefully selected on the basis of its importance to the printed article and its relevance to readers. In recent years we have received many Images in Clinical Medicine that are acceptable for publication, but the space for them in the printed *Journal* is limited. We have decided to publish some of these Images only on the Web.

The review and editorial process for Internet-only material will be the same as for all other manuscripts, and the same standards of quality will apply. Internet-only publications will be listed in the print version of the *Journal* and in our index. They will be indexed in Medline, can be cited in the literature, and will continue to be available indefinitely on our Web site. Internet-only publications are assigned electronic "page numbers" (e.g., e1) that will make them easy to find and cite. Increasingly, scientific journals are using the Internet to publish more than what appears in their printed pages. We welcome comments on our new Web-only feature.

EDWARD W. CAMPION, M.D.
KENT R. ANDERSON
JEFFREY M. DRAZEN, M.D.

REFERENCES

1. Ramos-Remus C, Galvan-Villegas F. A hair-on-end skull. *N Engl J Med* 2001;345:e1.

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FINALLY, A RANDOMIZED, CONTROLLED TRIAL OF EPILEPSY SURGERY

IN all of modern medicine, few generally accepted therapeutic interventions are as underutilized as surgical treatment for epileptic seizures. More than 2 mil-

lion people in the United States have epilepsy, and 400,000 to 600,000 of them have seizures that cannot be controlled by antiepileptic drugs.¹ As many as one quarter to one half of these people are potential candidates for surgical treatment, yet a 1990 survey revealed that only 1500 therapeutic surgical procedures for epilepsy were performed in the United States in that year and that the rate of use of surgery for epilepsy was equally low in other industrialized countries.² Surgical treatment for epilepsy was essentially nonexistent in the developing world 10 years ago,² although it is now offered in some developing countries.³ Even if the rate of surgical treatment had doubled in the past decade, however, it would have had only a small effect on the health care burden imposed by epilepsy.⁴

It is difficult to understand why physicians, as well as patients, remain reluctant to choose surgical treatment for epilepsy, since this therapeutic intervention has offered the only chance of cure for this disorder for more than a century.⁵ Furthermore, thousands of published reports have documented its safety and efficacy. True, brain surgery is invasive, but neurosurgical techniques have improved greatly in recent years, whereas uncontrolled epileptic seizures still present a substantial risk of disability and death.^{6,7} Although pre-surgical evaluation can be expensive, modern neurodiagnostic techniques have markedly reduced the need for costly, invasive studies,⁸ and the cost of surgery for epilepsy remains a small fraction of the cost of a lifetime of disability. Certainly, an important obstacle to surgery's taking what many believe to be its rightful place in the therapeutic armamentarium for epilepsy has been our failure to apply the gold standard for the evaluation of therapeutic efficacy — the randomized, controlled trial.

Why has there never been a randomized, controlled trial of surgery for epilepsy? In this regard, surgery for epilepsy has been a victim of its own success. The construction of an ethical randomized, controlled trial requires equipoise — honest doubt about the outcome. Most epilepsy centers currently report rates of freedom from seizures of 70 to 90 percent among patients with surgically remediable epileptic syndromes.⁸ Given that uncontrolled epileptic seizures may increase the risk of death by a factor of almost five,⁶ how can a patient with drug-resistant epilepsy who is referred for surgical treatment ethically be randomly assigned to continued pharmacotherapy? Equipoise certainly does not exist in the minds of those who are asked to perform the surgical intervention.

Finally, however, in this issue of the *Journal*, Wiebe and his colleagues report the results of a randomized, controlled trial of surgical treatment for epilepsy that they were able to justify ethically because the waiting list for surgery at their institution already exceeded one year.⁹ Consequently, they could randomly assign 40 patients with temporal-lobe epilepsy to a medical-