

CHILDHOOD TEMPORAL LOBECTOMY: RESULTS OF EXTENDED FOLLOW-UP

Long-term Follow-up of Temporal Lobectomy in Children

Jarrar RG, Buchhalter JR, Meyer FB, Sharbrough FW, Laws E

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Temporal lobectomy is an effective treatment for medically intractable seizures. The change in seizure status with prolonged postoperative follow-up is unclear. The authors followed up 37 patients who underwent first-time temporal lobectomy during childhood for at least 15 years. This study is the longest follow-up of children who have had a temporal lobectomy for intractable seizures. It demonstrates that seizure recurrence can increase with longer duration of follow-up.

COMMENTARY

Resective surgery is an important treatment for pharmacoresistant epilepsy, and temporal lobe epilepsy is an epilepsy syndrome that is particularly surgically remediable. Long-term seizure control is of paramount importance in evaluating the success of any therapy for epilepsy, and the report by Jarrar et al. presents a retrospective analysis of outcomes from a series of children who underwent temporal lobectomy for refractory epilepsy between 1970 and 1983 at the Mayo Clinic.

The report describes the outcomes of 37 patients followed up between 4 and 27 years (mean, 19 years) after temporal lobe resection that occurred during childhood (age at surgery ranged from 7 to 18 years, with mean age of 14.4 years). Follow-up information was ascertained by scripted phone interview or chart review, with postoperative seizure frequency scored by

using the modified Engel scoring system; scores between 0 and 4 are considered to be an excellent outcome.

At 1 and 5 years of follow-up, 76% and 88% of patients had achieved an excellent outcome, respectively. At 15 years of follow-up ($n = 32$ patients), however, only 59% of patients maintained a seizure-frequency score in the excellent-outcome category. Fully 40% of the patients who were seizure free at 5 years had seizure recurrence at the 15-year follow-up point. Patients with long-term recurrence were more likely to have abnormal pathology of their resected temporal lobe than were those without recurrence. Of the 32 patients followed up for longer than 15 years, only three (9%) were unemployed.

This article presents the longest follow-up data on children treated with temporal lobe resection for medically intractable epilepsy. Although the series entails patients with a spectrum of etiologies for their epilepsy and certainly reflects some variability in the extent of surgical resection from patient to patient, it does provide useful information—some sobering and some hopeful. The disappointing finding of waning seizure control with very long-term follow-up underscores the need for caution in proclaiming postoperative success at earlier times. Despite a sizable rate of seizure recurrence, the rate of employment in these patients is strikingly high. Perhaps this finding reinforces the benefits of early surgical intervention and the ability of a period of seizure freedom in formative years to keep individuals on course in their educational and vocational development. Finally, it should be noted that considerable advances in presurgical evaluation have occurred since the time in which the patients in this report underwent surgery. The expectation is that patients receiving resective surgical treatment for their epilepsy in this modern era might realize even better long-term outcomes compared with those in this series, yet careful long-term follow-up studies are required to establish this supposition.

by William J. Marks, Jr., M.D.