ANTIEPILEPTIC DRUGS SHOULD NEVER BE STOPPED AFTER EPILEPSY SURGERY

Michael Sperling
USA

Epilepsy surgery is often an effective treatment for medically refractory epilepsy. In theory, the cortex responsible for generating seizures, the epileptogenic zone, is excised, and the brain's propensity for seizures should disappear. However, defining the epileptogenic zone is problematic; the most obvious manifestation of the problem is the persistence of seizures in a significant proportion of patients after surgery, and the tendency for late relapse in a small percentage of patients long after surgery. Indeed, approximately half of patients relapse at least once within the first five years after anterior temporal lobectomy, and a small number relapse in each subsequent year. Seizure free rates are even lower for extratemporal resection and late relapse may also occur. Preoperative investigations in patients who are good candidates for focal resection invariably reveal extensive bilateral abnormalities in nearly all refractory patients; these are demonstrated with EEG, MRI, PET scanning, neuropsychological testing, and advanced functional MR techniques. Given the consequences of seizure relapse on psychosocial function, and the potential for recurrence of intractable epilepsy, medication taper poses risk that may not be justified in a patient who takes an antiepileptic drug without significant adverse effects. It is often more appropriate to view epilepsy surgery as treating medically refractory patients and making them medically responsive, continuing to utilize antiepileptic medications in as low a dose as possible to maximize chances of remaining seizure free.