CASE STUDIES IN SURGICAL EPILEPSY

G. Rees Cosgrove MD, FRCSC, FACS
Brigham and Women's Hospital
Harvard Medical School
Boston, MA

We will present three challenging cases of presumed idiopathic drug-resistant focal epilepsy. In each case, the clinical semiology, long term EEG monitoring results, surgical approach and clinical outcome will be discussed.

Case #1:
This 45-year-old right-handed carpenter had a 20 year history of medically refractory seizures characterized by loud vocalizations and brief, highly stereotyped rhythmic movements of both arms and legs with truncal flexion. The episodes would last 10-15 seconds often with preserved consciousness and then an immediate return to baseline without postictal confusion, dysphasia or headache. Initially, they were entirely nocturnal but in recent years, they had increased in frequency and occurred both during day and night. Scalp EEG recordings demonstrated bifrontal discharges interictally but ictal EEG onset was obscured by movement and muscle artifact. Multiple MRI scans were reported as normal. A surgical procedure was undertaken.

Case #2:
This 42-year-old right-handed female engineer had a 15 year history of focal sensory seizures involving the right side of her tongue frequently followed by right tongue/mouth twitching and speech arrest. The episodes would last 30 seconds - 2 minutes and would occur 2-5 times each day despite Trileptal, Lamictal and Dilantin. There was no history of secondary generalization. Both interictal and ictal scalp EEG monitoring was completely non-localizing. MRI scans were interpreted as completely normal. A surgical procedure was undertaken.

Case #3:
This 6-year-old right-handed girl was the product of a normal pregnancy and delivery. At 3 years of age she had experienced frequent episodes of brief, isolated, rapid movements of her right arm which were felt to be motor tics. These became progressively more severe and frequent with clear-cut seizures beginning at age 5. These events consisted of tonic head and eye deviation to the right along with right upper extremity elevation followed rapidly by right-sided clonic motor activity. The episodes would last 30-60 seconds and then resolve completely. She often remained completely awake and aware during these events. Although initially responsive to anti-epileptic medications, they quickly returned and could occur up to 15-20 times a day. Interictal EEG was unrevealing and ictal EEG showed bifrontal onset with some left-sided predominance. Multiple MRI scans were reported as normal. A surgical procedure was undertaken.

© 2017 The American Academy of Neurology Institute.