

31. A CASE OF TEMPORAL LOBE EPILEPSY WITH HIPPOCAMPAL SCLEROSIS

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Background. Temporal lobe epilepsy (TLE) is the most common form of focal epilepsy. Approximately 6 out of 10 patients with focal epilepsy have TLE. Hippocampal sclerosis (HS) is a frequent pathological abnormality underlying the TLE.

Case report. A 34-year-old man was admitted to the epileptology clinic with seizure episodes that start focally with an unpleasant feeling in the stomach, unusual smells, unmotivated fear followed by repetitive jerky movements of the left part of body and complex automatic behavior, accompanied with altered consciousness, which periodically progressed to a bilateral tonic-clonic seizure. The postictal period was characterized by confusion and amnesia. The seizures started at the age of 12 years after a traumatic brain injury. Carbamazepine, valproic acid, and clonazepam have been used (in monotherapy or polytherapy) to treat seizures, however, with inadequate response. His video electroencephalogram (EEG) monitoring revealed focal right temporo-frontal epileptiform discharges (spike, sharp wave, sharp and slow-wave) in wakefulness; right temporal, temporo-frontal epileptiform discharges in drowsiness and slow sleep. The high-density EEG (256 channels) revealed the onset of epileptiform activity in the hippocampus (parahippocampal gyrus) with subsequent propagation to the temporal lobe (superior temporal gyrus). MRI scan showed that the inferior horn of the right lateral ventricle measured 5.0 mm (left 1.5 mm) and the right hippocampus had a reduced volume. After the neurological evaluation, patient was started on carbamazepine extended release (15 mg/kg/bid), lamotrigine (3.5 mg/kg/bid) and clonazepam 1 mg/qd. With this combination of drugs, his seizures are partially controlled.

Conclusions. Seizure semiology, video-EEG, high-density EEG, and MRI results confirm the diagnosis of TLE with HS. Taking into account the inadequate control of seizures with medication and the presence of a confirmed structural cause, the patient could be considered eligible for the pre-surgical evaluation. TLE with HS is refractory for treatment in as many as 60% to 80% of cases. However, with the aid of MRI, high-density EEG, and neuropsychological evaluation, patients can now be timely selected for a surgical resection, a procedure that leads to seizure control and improvement in disabling psychiatric symptoms with minimal need for medication. Studies show a better long-term outcome in patients with HS after surgery (up to 90%) in comparison with antiepileptic drug therapy.

Key words: Temporal lobe epilepsy, hippocampal sclerosis, drug resistance, high-density EEG

32. CHARGE SYNDROME

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