

We confirm that we have read the Journal's position on issues involved in ethical publication and affirm that this letter is consistent with those guidelines.

We have no conflicts of interest to disclose.

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Rapid onset of florid psychotic symptoms during video-EEG telemetry: Undetected complex partial status?

Video-EEG (electroencephalography) telemetry has become increasingly utilized in the investigation of epilepsy and is part of the preoperative protocol for epilepsy surgery. Up to 95% of centers have a practice of reducing antiepileptic drugs (AEDs) in patients undergoing video-EEG monitoring in order to increase the chance of recording a seizure event (Fitzsimons et al., 2000). We describe a case of psychotic symptoms developing rapidly after a reduction of topiramate and carbamazepine in a patient undergoing video-EEG telemetry.

A 39-year-old right-handed woman experienced her first generalized tonic-clonic seizure at age 8, and began to have regular nocturnal tonic-clonic seizures shortly after she married at 23. Sodium valproate controlled the

motor symptoms. However, daytime and hypnagogic auras persisted, characterized by nondistressing auditory, olfactory, and gustatory hallucinations in conjunction with déjà vu phenomena and lip-smacking followed by confusion and expressive dysphasia. During these attacks the patient's level of consciousness appeared to diminish objectively but not subjectively. Weight gain necessitated a change of medication to carbamazepine, which initially ameliorated the auras, but maintaining this effect required a gradual dose increase and, eventually, augmentation with topiramate.

Neurologic examination revealed only an anxious mental state. A recent magnetic resonance imaging (MRI) study found the left hippocampus and mamillary body reduced in size, consistent with atrophy and mesial temporal sclerosis. Previous interictal EEG revealed subtle sharp-slow waveforms over the left temporal region suggestive of epilepsy. This patient was, therefore, put forward as a potential candidate for surgical treatment of her epilepsy.

On the day of admission for videotelemetry the doses of topiramate and carbamazepine were halved while concurrent medications continued unchanged. That night she developed initial insomnia and began to believe nurses were making derogatory remarks about her and listening in on her conversation. The next morning she experienced second and third person auditory hallucinations and developed the delusional belief that a specific male patient was plotting her murder. Unlike during the auras, the voices were fully formed and she developed delusional beliefs. Furthermore, she lacked insight and found the experience distressing. There was no evidence of confusion, altered sensorium, lip smacking, or stereotypical motor acts. The AEDs were increased back to preadmission levels and she was administered clobazam, whereupon the psychotic symptoms resolved over 24 h, but a moderate depression with cognitions of guilt and self-reproach persisted for a few weeks.

A video-EEG telemetry was performed continuously for 48 h. The EEG revealed appropriate sleep phenomena and staging without any evidence of recorded seizures. There were responsive alpha rhythms at 8–9 Hz (more regular over the right posterior quadrant), beta activity (12–25 Hz) in all areas, runs of delta activity (1–2 Hz) over mid and posterior left temporal lobe, and theta activity (4–7 Hz) more over the left temporal region. Frequent sharp-slow and spike and wave discharges were noted over the left temporal area, continuing during sleep.

This case is interesting because of the florid psychotic symptoms suddenly emerging after reduction in topiramate and carbamazepine in the absence of confusion or features of habitual fits. These symptoms rapidly resolved after only a single dose of clobazam and reinstatement of the usual doses of AEDs. In addition, the entire episode was captured on video-EEG telemetry. To our knowledge, there are no reported cases of psychosis during video-EEG telemetry in the absence of recorded seizures.

A number of explanations can be given for these events: The episode could be an acute discontinuation syndrome induced by AED withdrawal. Ketter et al. (1994) studied the psychiatric effects of AED withdrawal (although topiramate had not yet been introduced at that time) and found that anxiety and depression are frequently reported, whereas psychotic symptoms do occur but much less commonly. These authors did not state the rate of onset of withdrawal symptoms, but the depression and anxiety took several weeks to resolve. The symptoms could not be fully accounted for by increased seizure frequency or past psychiatric history, so a direct pharmacodynamic effect was postulated.

Although carbamazepine is undoubtedly useful in some psychiatric disorders, psychotic symptoms have been reported following its introduction (Mathew, 1988) and sudden withdrawal in patients with schizophrenia (Ketter et al., 1994). It is well known that topiramate can cause psychosis on initiation (Zesiewicz et al., 2006), particularly when a high dose is commenced in vulnerable patients (Mula & Trimble, 2003). However, there have been no reported cases of psychosis developing on discontinuation.

The rapid reduction of AEDs in our case may have precipitated nonconvulsive simple or complex partial status. It can be difficult to discriminate between simple and complex seizures because alteration of consciousness is poorly defined and can be subtle in the latter (Sacquegna et al., 1981). In this case, altered consciousness was not obvious on clinical examination—but formal neuropsychologic testing was not performed. Although video-telemetry revealed more pronounced sharp-slow waveforms over the left temporal region in comparison with the interictal EEG, no seizure activity was witnessed. However, scalp EEG patterns in complex partial status vary widely and can be very similar to the interictal picture (Shorvon, 1994). Such seizures are more reliably identified by stereoencephalography (SEEG).

An acute confusional state is unlikely because the psychotic symptoms did not fluctuate, there was no evidence of disorientation or physical ill health, and the EEG lacked the characteristic diffuse slowing.

The patient's history and presentation point most convincingly to this being a case of complex partial status not identified by scalp EEG, or a withdrawal syndrome. The true diagnosis cannot now be established unless the procedure is repeated using SEEG, to which the patient is unlikely to agree.

The authors gratefully acknowledge the help and cooperation of the patient described in this case report.

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ANNOUNCEMENTS

3rd International Conference for Restorative Neurology

The International Center for Neurological Restoration (CIREN) announces the International Conference “Restauracion Neurologica 2009,” to be held in Havana, Cuba, March 9–13, 2009. The topics will cover the spectrum of Restorative Neurology, including basic neuroscience, neurology, neurosurgery, nursing, and rehabilitation. For information, see <http://www.ciren.cu/irn2009.pdf> or contact the Organizing Committee at: fax: 53 7 2732420; email: rn2009@neuro.ciren.cu

Innsbruck Colloquium on Status Epilepticus 2009

The Innsbruck Colloquium on Status Epilepticus will take place April 2–4, 2009. The conference (chaired by S. Shorvon and E. Trinka) will focus on the following topics: bridging the gap from experimental models to