

Editors' Note: This week, authors Padua and Hobson-Webb and WriteClick contributor Dr. Zhu agree on the value of peripheral nerve ultrasound. In addition, Dr. Zhu highlights recent developments in ultrasound technology and its advantages over MRI.

—Megan Alcauskas, MD, and Robert C. Griggs, MD

PEARLS & OY-STERS: ICTAL SYNCOPE IN A PATIENT WITH TEMPORAL LOBE EPILEPSY

Nitin K. Sethi, New York: Varade et al.¹ reported ictal syncope in a patient with temporal lobe epilepsy (TLE). The MRI revealed a right temporal-occipital cavernous angioma and the seizure showed onset in the right posterior temporal electrode (T6) on EEG, all compatible with a diagnosis of symptomatic localization-related epilepsy. It is unclear why the patient's seizure semiology suddenly changed and why she started having syncopal episodes while earlier her seizures were characterized by impairment in consciousness and automatisms involving the upper extremities. It is possible that their patient had sick sinus syndrome coexisting with TLE aggravated by oxcarbazepine therapy. A cardiac electrophysiology study would have clarified the diagnosis in this challenging case.

Author Response: Mayssa M. Basha, Detroit: I appreciate Dr. Sethi's comments about this case report.¹ Even though oxcarbazepine's known bradyarrhythmic effects may have theoretically contributed to the patient's new presentation, studies have not found an association between the use of any individual antiepileptic drug and ictal syncope or ictal bradycardia. Furthermore, cardiovascular risk factors and ECG abnormalities have not been identified as predisposing factors.²⁻⁴ Finally, the patient underwent pacemaker implantation and subsequent interrogation of the device by cardiologists, which did not reveal the presence of sick sinus syndrome or any other cardiac abnormalities. The sudden change in semiology in this particular patient highlights the importance of a thorough evaluation of new episodic and stereotypic events in patients with epilepsy.

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1. Varade P, Rayes M, Basha M, Watson C. Pearls & Oysters: ictal syncope in a patient with temporal lobe epilepsy. *Neurology* 2013;80:e172–e174.
2. Lanz M, Oehl B, Brandt A, Schulze-Bonhage A. Seizure induced cardiac asystole in epilepsy patients undergoing long term video-EEG monitoring. *Seizure* 2011;20:167–172.
3. Strzelczyk A, Cenusca M, Bauer S, et al. Management of long-term outcome in patients presenting with ictal asystole or bradycardia. *Epilepsia* 2011;52:1160–1167.
4. Schuele SU, Bermeo AC, Alexopoulos AV, et al. Video-electrographic and clinical features in patients with ictal asystole. *Neurology* 2007;69:434–441.

ULTRASOUND AS THE FIRST CHOICE FOR PERIPHERAL NERVE IMAGING?

Jiaan Zhu, Shanghai: I agree with most of Padua and Hobson-Webb's¹ opinions on peripheral nerve imaging. However, some statements may mislead readers about the true value of peripheral nerve ultrasound (US). The authors contend that US is an old technology and advances are largely confined to post-image processing. This is not accurate because the advances in US have been evolutionary rather than revolutionary so have drawn less attention than MRI techniques.² Recently, US has further advanced due to new techniques and new transducer material, which allow for visualization of the inner part of smaller nerves.³ MRI does not have this capability. The authors also consider whether US technology is suitable for peripheral nerve imaging. In addition to high spatial resolution, an important advantage of US detection of peripheral neuropathy is its real-time dynamic scanning, not the contrast agents or analysis of nerve movement. The association between abnormal nerve structures and the scar tissue could be accurately observed if the transducer was gradually moved to the damaged region from a known anatomical landmark.⁴

Author Response: Luca Padua, Rome; Lisa D. Hobson-Webb, Durham, NC: We thank Dr. Zhu for supporting nerve US imaging. Our comments were intended to present US as a favorable—if not first—choice for peripheral nerve imaging. US is often overlooked in favor of MRI, despite its many advantages. We agree that US technology has steadily improved, and, as our editorial states, its high spatial

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