Disclosures.
The author has no conflict of interest to disclose.

References

Agostini SD, Aniles E, Sirven J, Drazkowski JF. The importance of cardiac monitoring in the epilepsy monitoring unit: a case presentation of ictal asystole. *Neurodiagn J* 2012; 52(3): 250-60.

Bergey GK, Krumholz A, Fleming CP. Complex partial seizure provocation by vasovagal syncope: video-EEG and intracranial electrode documentation. *Epilepsia* 1997; 38(1): 118-21.

Guldiken B, Hartl E, Remi J, Noachtar S. Ictal asystole mimicking seizure deterioration in temporal lobe epilepsy. *Epileptic Disord* 2015; 17(3): 332-5.

Howell SJ, Blumhardt LD. Cardiac asystole associated with epileptic seizures: a case report with simultaneous EEG and ECG. *J Neurol Neurosurg Psychiatry* 1989; 52(6): 795-8.

Irsel Tezer F, Saygi S. The association of cardiac asystole with partial seizures: does it result from ictal or interictal activity? *Epilepsy Res* 2011; 96(1-2): 180-4.

Katz RI, Tiger M, Harner RN. Epileptic cardiac arrhythmia: sinoatrial arrest in two patients. A potential cause of sudden death in epilepsy? *Epilepsia* 1983; 24: 248.

Novak VV, Reeves LA, Novak P, Low AP, Sharbrough WF. Time-frequency mapping of R-R interval during complex partial seizures of temporal lobe origin. *J Auton Nerv Syst* 1999; 77(2-3): 195-202.

Oppenheimer SM, Wilson JX, Guiraudon C, Cechetto DF. Insular cortex stimulation produces lethal cardiac arrhythmias: a mechanism of sudden death? *Brain Res* 1991; 550(1): 115-21.

Scheepers B, Clough P, Pickles C. The misdiagnosis of epilepsy: findings of a population study. *Seizure* 1998; 7(5): 403-6.

Sevcencu C, Struijk JJ. Autonomic alterations and cardiac changes in epilepsy. *Epilepsia* 2010; 51(5): 725-37.

Smith D, Defalla BA, Chadwick DW. The misdiagnosis of epilepsy and the management of refractory epilepsy in a specialist clinic. *QJM* 1999; 92(1): 15-23.

Strzelczyk A, Cenusa M, Bauer S, *et al*. Management and long-term outcome in patients presenting with ictal asystole or bradycardia. *Epilepsia* 2011; 52(6): 1160-7.

Tinuper P, Bisulli F, Cerullo A, *et al*. Ictal bradycardia in partial epileptic seizures: autonomic investigation in three cases and literature review. *Brain* 2001; 124(12): 2361-71.

van Rijckevorsel K, Saussu F, de Barsy T. Bradycardia, an epileptic ictal manifestation. *Seizure* 1995; 4(3): 237-9.

doi:10.1684/epd.2016.0852

Author response

To the editor,

We read with great interest the comments of Onder regarding our recent case report (Guldiken *et al*., 2015). He addressed that the cause-effect relationship of seizures and asystole has remained unclear in some previously published case reports where asystole preceded the onset of ictal activity on scalp EEG (Irsel Tezer and Saygi, 2011; Howell and Blumhardt, 1989). A primary cardiac pathology has been discussed as a probable cause of asystole in these patients. Ictal EEG seizure patterns on scalp EEG may frequently occur after clinical seizure onset. In some of these patients, invasive EEG evaluation may demonstrate earlier seizure onset relative to surface evaluations if the invasive electrodes are placed in the seizure onset zone.

In our patient, however, the asystole was beyond any doubt secondary to the epileptic seizure activity. She did not have any cardiac disorder. She had had a left temporal lobe epilepsy due to cavernoma and we could demonstrate that the ictal EEG seizure pattern in the left temporal lobe preceded the asystole by 30 seconds. Thus, the asystole in our patient resulted from the temporal lobe seizure activity and her recurrent falls were due to syncope-associated atonia, rather than an expression of secondary seizure generalization. □

Baburhan Guldiken
Medical Faculty of Trakya University,
Neurology,
Trakya U.Tip Fak.,
Turkey
<baburhan@hotmail.com>

References

Guldiken B, Hartl E, Remi J, Noachtar S. Ictal asystole mimicking seizure deterioration in temporal lobe epilepsy. *Epileptic Disord* 2015; 17: 332-5.

Howell SJ, Blumhardt LD. Cardiac asystole associated with epileptic seizures: a case report with simultaneous EEG and ECG. *J Neurol Neurosurg Psychiatry* 1989; 52(6): 795-8.

Irsel Tezer F, Saygi S. The association of cardiac asystole with partial seizures: does it result from ictal or interictal activity? *Epilepsy Res* 2011; 96(1-2): 180-4.

doi:10.1684/epd.2016.0863