

Neurological Vignette

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DOI: 10.1159/000290251**Epileptic Asystole**

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Epilepsy • Asystole • Bradycardia • Insular cortex

A 53-year-old man with focal epilepsy following encephalitis 30 years ago (medication: levetiracetam and oxcarbazepine) was treated and ECG monitored on our emergency ward due to increased seizure frequency. He was otherwise healthy, especially without cardiac disease. ECG monitoring (fig. 1) captured epileptic asystole, lasting for 18 s. Concomitantly, he lost consciousness and exhibited tonic posturing. Regular sinus rhythm recurred spontaneously, afterwards there was prolonged aphasia,

suggesting a left hemispheric seizure origin. Consistent with this clinical semiology, previous studies have suggested left hemispheric lateralization of epileptic asystole, with the left insular region producing inhibitory effects on cardiac function via the parasympathetic nervous system [1, 2]. In case of epileptic asystole, thorough seizure control is warranted.

References

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- 2 Oppenheimer SM, Gelb A, Girvin JP, Hachinski VC: Cardiovascular effects of human insular cortex stimulation. *Neurology* 1992;42:1727–1732.

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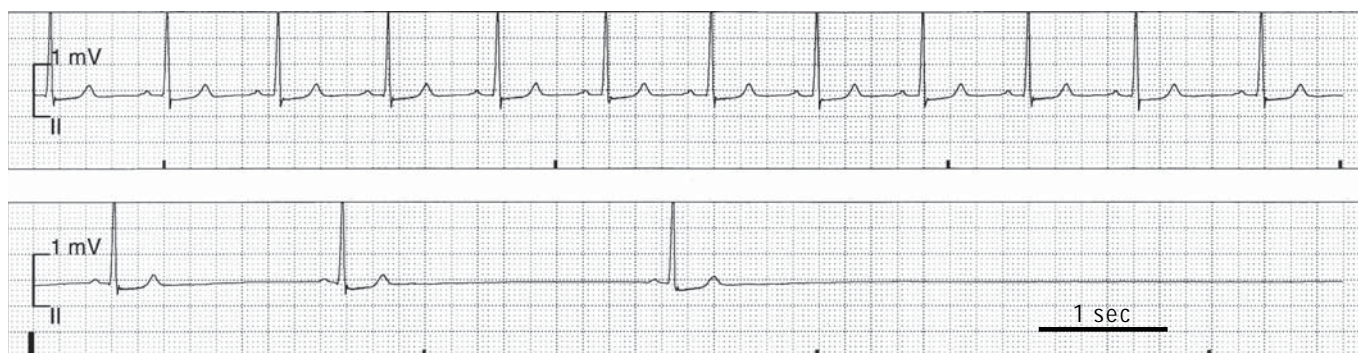
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Fig. 1. Three-lead ECG captured increasing sinus bradycardia over 4–5 heart beats leading to complete sinus arrest. Detailed cardiologic evaluation was unremarkable. Epileptic asystole is a rare complication in focal epilepsy, especially temporal/frontal lobe epilepsy with involvement of the insular cortex [1], and may contribute to sudden unexplained death in epilepsy.

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