

Teaching Video NeuroImage: Reflex Epilepsy

Seizures Induced by Vigorous Exercise

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Case

A 7-year-old right-handed boy with tuberous sclerosis complex and focal epilepsy presented with new episodes of exercise-induced full body tonic posturing, whimpering, and preserved awareness. He underwent video-EEG investigation where he had a representative seizure after vigorous pedaling on a stationary bike associated with bitemporal (left more than right) ictal correlate (Video 1). Brain MRI demonstrated stability of his cortical tubers, none with temporal topography. Exercise-induced seizures are a rare form of reflex epilepsy.¹ Available data suggest these seizures typically localize to the temporal region (left more commonly than right) and tend to be refractory to treatment, depending on the etiology.² The mechanisms of epileptogenesis in TSC are presumed to be related to the neuropathologic features of the disorder, including cortical tubers and other dysgenesis.³

MORE ONLINE

Teaching slides

links.lww.com/WNL/B710

▶ Video

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Disclosure

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| Name | Location | Contribution |
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| John R. McLaren, MD | Massachusetts General Hospital, Boston, MA | Drafting/revision of the manuscript for content, including medical writing for content, major role in the acquisition of data, study concept or design, and analysis or interpretation of data |
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