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# Teaching Video Neuro*lmage*: Electroclinical characteristics of micturition-induced reflex epilepsy

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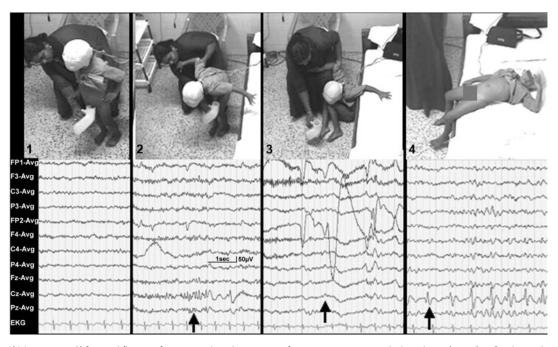
A 6-year-old boy presented with seizures since the age of 3 years characterized by sudden extension of the upper extremities and a tendency to fall forward; each seizure was induced by micturition. The ictal EEG during these seizures showed 20 Hz beta activity followed by 2 Hz spike-wave discharges confined to the Cz electrode (figure, video).

Among the six patients with micturitioninduced seizures documented so far in the literature, a midline or right medial frontal epileptogenic focus has been consistently documented.<sup>1</sup> Although a high resolution MRI in our patient failed to define any focal abnormality, presence of an occult hyperexcitable dysplastic lesion cannot be excluded.<sup>2</sup>

#### **REFERENCES**

- Okumura A, Kondo Y, Tsuji T, et al. Micturition induced seizures: ictal EEG and subtraction ictal SPECT findings. Epilepsy Res 2007;73:119–121.
- Palmini A, Halasz P, Scheffer IE, et al. Reflex seizures in patients with malformations of cortical development and refractory epilepsy. Epilepsia 2005;46:1224–1234.

Figure Stills from video-EEG recording



1) Micturating; 2) forward flexion of upper trunk and extension of upper extremities, and a beta burst (arrow) at Cz electrode; 3) fall and attenuation of the EEG activity (arrow); and 4) rhythmic 2 Hz spike and wave discharges at Cz electrode during postictal phase.

### Supplemental data at www.neurology.org

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