■ Multimedia teaching material

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Epileptic Disorders

Asymmetric eye movement artifacts on EEG, secondary to unilateral retinal detachment in patients with focal epilepsy

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Eye movement-related artifacts on scalp EEG are caused by potential differences between the cornea and retina, with the retina being negative and the cornea positive [1, 2]. Retinal diseases that cause changes on the electrooculogram have been described [3, 4]. Asymmetric eye blinking artifacts on EEG due to retinal pathology in patients with epilepsy have not been previously reported. We describe two patients with asymmetric eye movement artifacts, secondary to unilateral retinal detachment *(figures 1* and *2)*. Ocular movements and blinks were clinically symmetric in both patients. Asymmetric eye movement artifacts on EEG in these patients were likely secondary to altered corneo-retinal potential due to retinal detachment.

Disclosures.
None of the authors have any conflicts of interest to declare.

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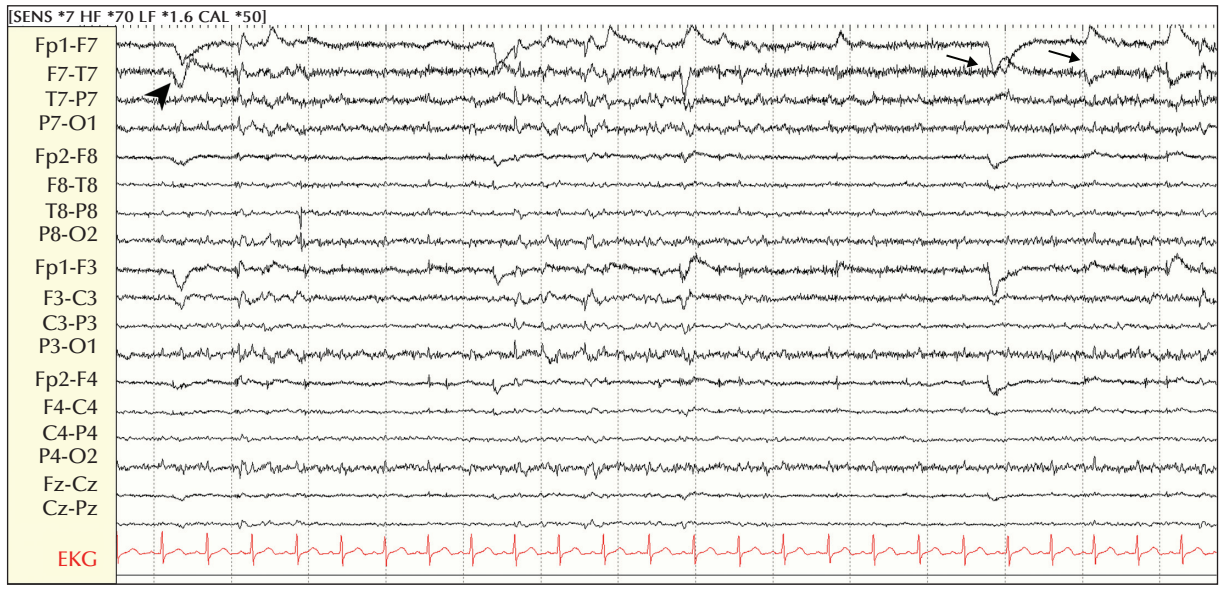
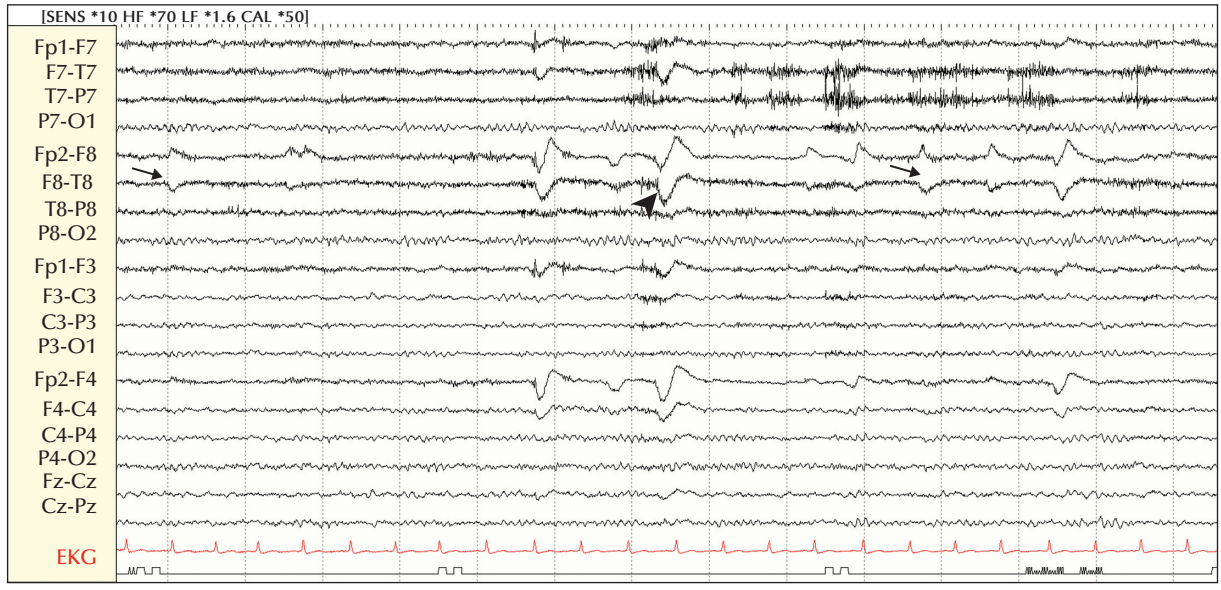


■ **Figure 1.** EEG showing artifacts related to blinking (arrowhead) and lateral eye movements (arrow), asymmetrically present on the left side. Left hemispheric spikes, maximum in the centro-temporal region, were also noted. The patient was a 20-year-old-woman with traumatic brain injury and right eye retinal detachment.



■ **Figure 2.** EEG showing artifacts related to blinking (arrowhead) and lateral eye movements (arrow), asymmetrically present on the right side. The patient was a 16-year-old-girl with Sturge-Weber syndrome and left eye retinal detachment secondary to glaucoma.