Epileptic nystagmus due to a large parieto-temporo-occipital multilobar dysplasia

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ABSTRACT – We report a young female with medically refractory multiple daily seizures since childhood with semiology suggestive of an epileptic nystagmus. She had a large multilobar parieto-temporo-occipital dysplasia and became seizure-free after parieto-temporo-occipital disconnection with preserved visual functions.

Key words: epileptic nystagmus, occuloclonia, parieto-temporo-occipital dysplasia

Epileptic nystagmus or occuloclonia originates from cortical regions contralateral to the fast component (Lee et al., 2014). Occuloclonia originating from saccadic areas results in contralesional ocular deviation with decreasing slow-phase velocity (SPV) and does not cross the midline (Tusa et al., 1990). In contrast, Occuloclonia originating from smooth pursuit areas results in ipsilesional ocular deviation with linear SPV and a reflex quick phase crossing the midline towards contralesional side (Tusa et al., 1990).

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

References


Figure 1. MRI, PET and SPECT imaging. (A) T2 FLAIR image shows a large left PTO multilobar dysplasia. (B) PET shows significant hypometabolism corresponding to the dysplasia. (C) SPECT tracer uptake over the left occipital region.

Figure 2. Ictal onset scalp VEEG. (A) Ictal onset showing a rhythmic irregular 1-2-Hz low-amplitude spike-wave complex evolving into rhythmic 8-9-Hz activity over the left PTO region (T5-O1 and P3-O1 channel). (B) Nystagmus artifacts. (C) Ictal activity spreading to other areas. (D) Resolution and offset.

(1) What are the sites of origin of epileptic nystagmus?
(2) How do you differentiate between epileptic nystagmus originating from saccadic areas and smooth pursuit areas?
(3) What are the features of epileptic nystagmus originating from a central optokinetic region?

Note: Reading the manuscript provides an answer to all questions. Correct answers may be accessed on the website, www.epilepticdisorders.com, under the section “The EpiCentre.”