Continuous Unilateral Eye Blinking Related to Cerebellar Epilepsy in a Neonate

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Neurology® Published Ahead of Print articles have been peer reviewed and accepted for publication. This manuscript will be published in its final form after copyediting, page composition, and review of proofs. Errors that could affect the content may be corrected during these processes.
Contributions:
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Mara Lucia Schmitz Ferreira Santos: Major role in the acquisition of data; Study concept or design; Analysis or interpretation of data

Number of characters in title: 68

Abstract Word count:
Word count of main text: 99
References: 2
Figures: 1
Tables: 0

Supplemental: Checklist CARE Patient consent-to-disclose form


Study Funding: The authors report no targeted funding

Disclosures: The authors report no disclosures relevant to the manuscript.

A 4-month-old baby girl with continuous left eye blinking associated with ipsilateral head rotation since birth was submitted to epilepsy work-up (Video). MRI revealed a mass in the left superior cerebellar peduncle (Fig.1A). and PET/CT showed hypermetabolism in the lesion and occipital lobes. Superficial EEG was normal. During surgical resection an electrode was placed direct in the lesion and seizure activity was registered originating from it (Fig.1C). Histopathology confirmed the diagnosis of cerebellar gangliomatous hamartoma (Fig.1D). She was seizure free after surgery. Rarely cerebellar lesions can cause epilepsy presenting with hemifacial spasm, possible mechanisms are interruption of the dentorubrothalamic tract and facial nucleus compression\(^{(1,2)}\).

REFERENCES

Video 1. Semiology of cerebellar epilepsy. Continuous left eye blinking associated with ipsilateral head rotation.

Figure 1. Documented epileptic activity in the cerebellar lesion. Coronal T2-weighted MRI (A) shows expansive lesion within the left superior cerebellar peduncle (white arrow). Transperatory image (B) shows the tumor (white arrow) extending to the fourth ventricle between the cerebellar hemispheres. Intraoperative EEG (C) with superficial (first row), deep (second row) and facial muscles (third row) electrodes confirms ictal activity within the lesion. Photomicrograph (H&E, 400x) shows disorganized hypercellularity with dysplastic neurons (long black arrows) and astrocytes (long double headed-arrows) within a fibrillary background matrix (D).
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Bernardo Corrêa de Almeida Teixeira, Rafaela Grochoski, Carlos Alberto Mattozo, et al.
Neurology published online October 20, 2021
DOI 10.1212/WNL.0000000000012949

This information is current as of October 20, 2021

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