Continuous Unilateral Eye Blinking Related to Cerebellar Epilepsy in a Neonate

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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). Transoperatory 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).