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Neurology Publish Ahead of Print

DOI: 10.1212/WNL.000000000206752

Teaching Video NeuroImage: Alternating Skew Deviation as a Manifestation of Anti-GAD65–Associated Cerebellitis

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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. Videos, if applicable, will be available when the article is published in its final form.

Equal Author Contribution:

Contributions:

Carter Bell: Drafting/revision of the manuscript for content, including medical writing for content

Patrick Drummond: Major role in the acquisition of data

Scott Grossman: Drafting/revision of the manuscript for content, including medical writing for content; Study concept or design; Analysis or interpretation of data

Figure Count:

0

Table Count:

0

Search Terms:

[186] All Neuro-ophthalmology, [192] Nystagmus, Alternating Skew Defect, Cerebellitis, anti-GAD65

Acknowledgment:

Study Funding:

The authors report no targeted funding

Disclosures:

The authors report no disclosures relevant to the manuscript.

Preprint DOI:

Received Date:

2022-08-19

Accepted Date:

2022-11-15

Handling Editor Statement:

Submitted and externally peer reviewed. The handling editor was Whitley Aamodt, MD, MPH.

Article

A 53-year-old woman presented with ataxia, dysarthria, and vertical binocular diplopia on left and right gaze but absent in primary gaze. Her symptoms were progressive over several months without clear inciting event. Initial neuro-ophthalmology showed subtle downbeat nystagmus in primary gaze that increased in horizontal gaze, consistent with 'side-pocket' phenomenon.¹ On cross-cover testing she was found to have an alternating skew deviation, raising question of cerebellar localization (Video 1). Multiple etiologies can lead to ASD including autoimmune, ischemic and paraneoplastic entities. Prior structural imaging was unrevealing. Serum studies revealed elevated glutamic acid decarboxylase antibody (anti-GAD65) levels (>250.0 IU/mL, normal range 0-5.0 IU/mL). She was subsequently diagnosed with anti-GAD65 cerebellitis. The patient was not screened for a neoplasm as anti-GAD65 is rarely paraneoplastic in nature. Anti-GAD65 interferes with the production of GABA, thereby disrupting supranuclear pathways and has been associated with autoimmune epilepsy and stiff-person syndrome. Intravenous immunoglobulin may improve outcome.²

Video: Alternating Skew Deviation in anti-GAD65 Cerebellitis

This patient has an alternating skew deviation with 8 prism diopters right hypertropia in right gaze and 8 prism diopters left hypertropia in left gaze.

<http://links.lww.com/WNL/C557>

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Carter Bell, Patrick Drummond and Scott Grossman
Neurology published online December 20, 2022
DOI 10.1212/WNL.0000000000206752

This information is current as of December 20, 2022

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