Teaching Video *NeuroImages*: Alternating skew deviation with abducting hypertropia following superior colliculus infarction

Damien Biotti, MD
Marianne Barbieux, MD
David Brassat, PhD

Correspondence to
Dr. Biotti:
biotti.d@chu-toulouse.fr

Figure Ocular motor examination and MR images

(A) Ocular motor examination (right gaze, straight gaze, left gaze). (B) Diffusion-weighted imaging (left) and apparent diffusion coefficient images (right) reveal a focal and acute ischemic stroke.

A 63-year-old patient was admitted with acute ataxia and binocular oblique diplopia. Neuro-ophthalmologic examination revealed abducting hypertropia on lateral gaze, better seen during up-gaze, mimicking bilateral inferior oblique palsy (video, figure). There was no ocular cyclotorsion.

Brain MRI revealed focal ischemic lesions in the right cerebellar hemisphere and left superior colliculus (figure). The diagnosis of alternating abducting hypertropic skew deviation was made. This rare type of skew deviation is related to central otolithic dysfunction. Similar cases have been described with

Supplemental data
at Neurology.org

Download teaching slides:
Neurology.org

From the B4 Inflammatory Neurology Unit, Neuro-ophthalmology (D. Biotti, D. Brassat), and the B5 Vascular Neurology Unit (M.B.), Pole des Neurosciences, CHU Purpan, Toulouse; and INSERM UMR 1043 et Université Toulouse III (D. Brassat), France.

Go to Neurology.org for full disclosures. Funding information and disclosures deemed relevant by the authors, if any, are provided at the end of the article.

cerebellar, pretectal, or cervico-medullary junction lesions.^{1,2} Orthoptic management can help and patients can slowly improve over months.

AUTHOR CONTRIBUTIONS

D. Biotti: principal author, corresponding author. M. Barbieux: contributor, neurologic management. D. Brassat: contributor.

STUDY FUNDING

No targeted funding reported.

DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

REFERENCES

1. Versino M, Hurko O, Zee D. Disorders of binocular control of eye movements in patients with cerebellar dysfunction. *Brain* 1996;119:1933–1950.
2. Hamed LM, Maria BL, Quisling RG, Mickle JP. Alternating skew on lateral gaze: neuroanatomic pathway and relationship to superior oblique overaction. *Ophthalmology* 1993;100:281–286.

Neurology®

Teaching Video *NeuroImages*: Alternating skew deviation with abducting hypertropia following superior colliculus infarction

Damien Biotti, Marianne Barbieux and David Brassat

Neurology 2016;86:e93-e94

DOI 10.1212/WNL.0000000000002425

This information is current as of February 29, 2016

Neurology® is the official journal of the American Academy of Neurology. Published continuously since 1951, it is now a weekly with 48 issues per year. Copyright © 2016 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/86/9/e93.full
Supplementary Material	Supplementary material can be found at: http://n.neurology.org/content/suppl/2016/02/27/WNL.00000000000002425.DC1 http://n.neurology.org/content/suppl/2016/03/14/WNL.00000000000002425.DC2
References	This article cites 2 articles, 0 of which you can access for free at: http://n.neurology.org/content/86/9/e93.full#ref-list-1
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): All Cerebrovascular disease/Stroke http://n.neurology.org/cgi/collection/all_cerebrovascular_disease_stroke Clinical neurology examination http://n.neurology.org/cgi/collection/clinical_neurology_examination Diplopia (double vision) http://n.neurology.org/cgi/collection/diplopia_double_vision MRI http://n.neurology.org/cgi/collection/mri Ocular motility http://n.neurology.org/cgi/collection/ocular_motility
Permissions & Licensing	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: http://www.neurology.org/about/about_the_journal#permissions
Reprints	Information about ordering reprints can be found online: http://n.neurology.org/subscribers/advertise

Neurology® is the official journal of the American Academy of Neurology. Published continuously since 1951, it is now a weekly with 48 issues per year. Copyright © 2016 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.