

# Teaching Video NeuroImage: Unilateral Gaze Palsy With Nystagmus and Facial Weakness

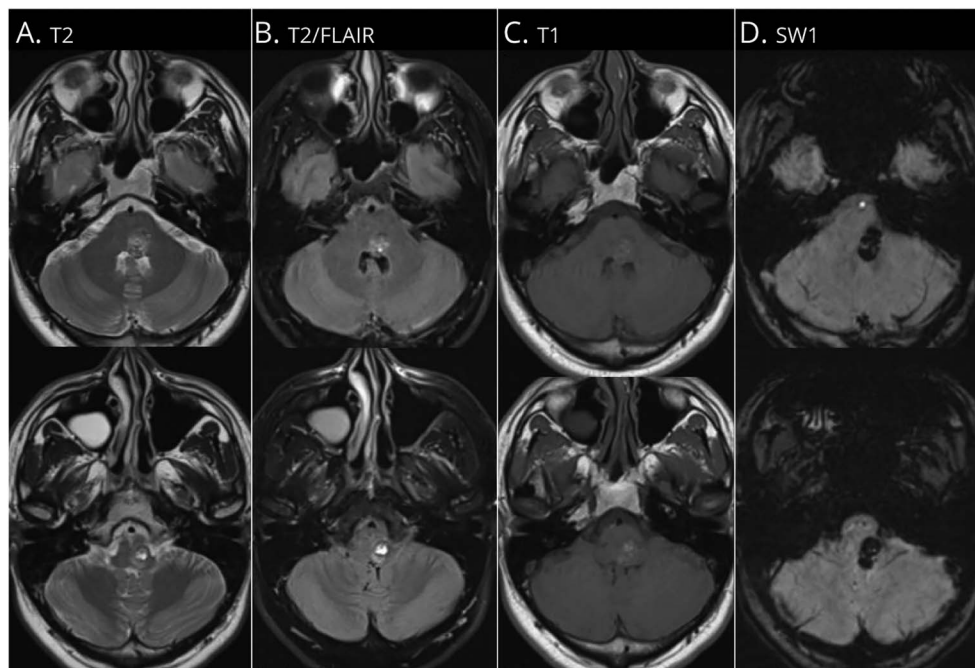
Laura Donaldson, MD, PhD, Ivan Radovanovic, MD, PhD, and Edward Margolin, MD

*Neurology*® 2022;98:554-555. doi:10.1212/WNL.0000000000200036

## Correspondence

Dr. Margolin  
Edward.margolin@uhn.ca

**Figure** Pontomedullary Cavernous Hemangioma Causing Left Gaze Palsy



Axial T2-weighted and FLAIR MRI images show a hyperintense left dorsal pontomedullary lesion with surrounding edema (A and B). There is intrinsic mild T1 hyperintensity consistent with subacute hemorrhage (C). Susceptibility-weighted imaging (SWI) shows hemosiderin deposition within this vascular lesion (D).

A 27-year-old man presented with 6 months of binocular horizontal diplopia worsening over 2 weeks. Examination (Video 1) showed near complete inability to look to the left with left-beating nystagmus. He was orthotropic on alignment testing in primary gaze. There was mild left facial weakness with nasolabial fold flattening. MRI revealed left pontine cavernoma with small area of acute hemorrhage (Figure). Horizontal gaze palsy with ipsilateral facial weakness localizes to the sixth nerve nucleus and encircling facial nerve fascicles<sup>1</sup>; esotropia is minimal unlike fascicular sixth nerve palsy. Involvement of the horizontal gaze integrator/nucleus prepositus hypoglossi accounts for horizontal nystagmus.

## Study Funding

No targeted funding reported.

## MORE ONLINE

 Video

## Teaching slides

<http://links.lww.com/WNL/B781>

From the Department of Ophthalmology and Vision Sciences (L.D., E.M.); Department of Surgery (I.R.); and Department of Medicine (E.M.), University of Toronto, Canada. Go to [Neurology.org/N](http://Neurology.org/N) for full disclosures. Funding information and disclosures deemed relevant by the authors, if any, are provided at the end of the article.

## Disclosure

The authors report no disclosures relevant to the manuscript. Go to [Neurology.org/N](https://www.neurology.org/N) for full disclosures.

## Appendix Authors

Name	Location	Contribution
<b>Laura Donaldson, MD, PhD</b>	University of Toronto, Department of Ophthalmology and Vision Sciences	Major role in the acquisition of data and analysis or interpretation of data
<b>Ivan Radovanovic, MD, PhD</b>	University of Toronto, Department of Surgery	Major role in the acquisition of data and analysis or interpretation of data

## Appendix *(continued)*

Name	Location	Contribution
<b>Edward Margolin, MD</b>	University of Toronto, Department of Medicine	Drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; study concept or design; and analysis or interpretation of data

## Reference

1. Bender MB. Brain control of conjugate horizontal and vertical eye movements. A survey of the structural and functional correlates. *Brain* 1980;103(1):23-69.

## Manage Your Career | Recruit Top Talent

The AAN's Neurology Career Center is the largest job site specifically for neurologists. Visit [careers.aan.com](https://careers.aan.com) to find your next hire or search from hundreds of open positions in neurology.

## Are You Ready to Maximize Your Medicare Reimbursement?

Use the AAN tools and resources to earn positive payments and avoid penalties under MIPS. Take action today, visit [AAN.com/QPP](https://aan.com/QPP)

## Disputes & Debates: Rapid Online Correspondence

The editors encourage comments on recent articles through Disputes & Debates:

Access an article at [Neurology.org/N](https://www.neurology.org/N) and click on "MAKE COMMENT" beneath the article header.

Before submitting a comment to Disputes & Debates, remember the following:

- Disputes & Debates is restricted to comments about articles published in *Neurology* within 6 months of issue date, but the editors will consider a longer time period for submission if they consider the letter a significant addition to the literature
- Read previously posted comments; redundant comments will not be posted
- Your submission must be 200 words or less and have a maximum of 5 references; the first reference must be the article on which you are commenting
- You can include a maximum of 5 authors (including yourself)

# Neurology<sup>®</sup>

## Teaching Video NeuroImage: Unilateral Gaze Palsy With Nystagmus and Facial Weakness

Laura Donaldson, Ivan Radovanovic and Edward Margolin  
*Neurology* 2022;98;554-555 Published Online before print January 24, 2022  
DOI 10.1212/WNL.0000000000200036

**This information is current as of January 24, 2022**

<b>Updated Information &amp; Services</b>	including high resolution figures, can be found at: <a href="http://n.neurology.org/content/98/13/554.full">http://n.neurology.org/content/98/13/554.full</a>
<b>References</b>	This article cites 1 articles, 0 of which you can access for free at: <a href="http://n.neurology.org/content/98/13/554.full#ref-list-1">http://n.neurology.org/content/98/13/554.full#ref-list-1</a>
<b>Subspecialty Collections</b>	This article, along with others on similar topics, appears in the following collection(s): <b>All Cerebrovascular disease/Stroke</b> <a href="http://n.neurology.org/cgi/collection/all_cerebrovascular_disease_stroke">http://n.neurology.org/cgi/collection/all_cerebrovascular_disease_stroke</a> <b>Clinical neurology examination</b> <a href="http://n.neurology.org/cgi/collection/clinical_neurology_examination">http://n.neurology.org/cgi/collection/clinical_neurology_examination</a> <b>Ocular motility</b> <a href="http://n.neurology.org/cgi/collection/ocular_motility">http://n.neurology.org/cgi/collection/ocular_motility</a>
<b>Permissions &amp; Licensing</b>	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: <a href="http://www.neurology.org/about/about_the_journal#permissions">http://www.neurology.org/about/about_the_journal#permissions</a>
<b>Reprints</b>	Information about ordering reprints can be found online: <a href="http://n.neurology.org/subscribers/advertise">http://n.neurology.org/subscribers/advertise</a>

*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 © 2022 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

