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

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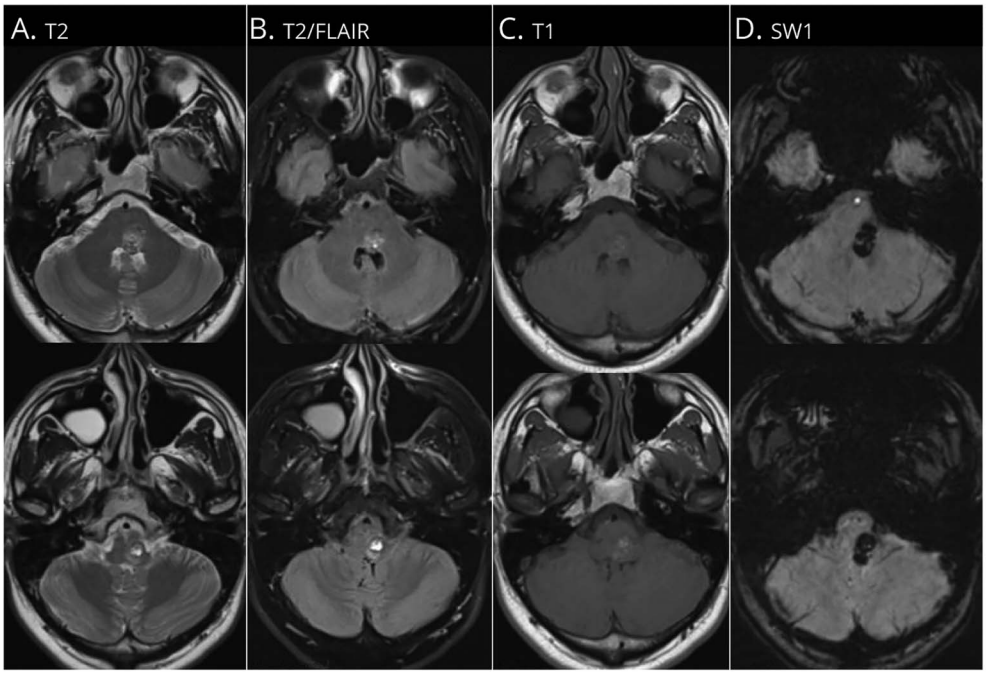
Figure Pontomedullary Cavernous Hemangioma Causing Left Gaze Palsy



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[1]; esotropia is minimal unlike fascicular sixth nerve palsy. Involvement of the horizontal gaze integrator/nucleus prepositus hypoglossi accounts for horizontal nystagmus.

MORE ONLINE

Video

Teaching slides
http://links.lww.com/WNL/B781

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Disclosure

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Appendix Authors

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

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