A 20-year-old man presented with vertigo followed by hourly episodes of dysarthria and incoordination lasting 5–20 seconds (video 1). Neurologic examination was normal between episodes. The only brain/spine MRI lesion was in the right superior cerebellar peduncle (figure, A). CSF analysis revealed elevated white blood cells (6/μL [normal, 0–5]) and oligoclonal
bands (≥4). Paroxysmal dysarthria–ataxia associated with CNS demyelination was diagnosed and episodes resolved with oral acetazolamide 250 mg twice daily. Subsequent MRI of the brain and spine (figure, B) confirmed multiple sclerosis. Paroxysmal dysarthria–ataxia arises from ephaptic transmission within midbrain or cerebellar multiple sclerosis lesions and may respond to carbamazepine or acetazolamide. It should be distinguished from genetic or contactin-associated protein-like-2 (CASPR2) immunoglobulin G–associated episodic ataxia.1

**Study Funding**
No targeted funding reported.

**Disclosure**
The authors report no disclosures relevant to the manuscript. Go to Neurology.org/N for full disclosures.

**Appendix Authors**

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shailee Shah, MD</td>
<td>Mayo Clinic, Rochester, MN</td>
<td>Design and conceptualization of study</td>
</tr>
<tr>
<td>Bryan T. Klassen, MD</td>
<td>Mayo Clinic, Rochester, MN</td>
<td>Design and conceptualization of study</td>
</tr>
<tr>
<td>Eoin P. Flanagan, MD</td>
<td>Mayo Clinic, Rochester, MN</td>
<td>Design and conceptualization of study, study supervision</td>
</tr>
</tbody>
</table>

**References**
Teaching Video NeuroImages: Paroxysmal Dysarthria-Ataxia in Multiple Sclerosis
Shailee Shah, Bryan T. Klassen and Eoin P. Flanagan
Neurology 2021;96:e2245-e2246 Published Online before print January 5, 2021
DOI 10.1212/WNL.0000000000011498

This information is current as of January 5, 2021

Updated Information & Services
including high resolution figures, can be found at:
http://n.neurology.org/content/96/17/e2245.full

References
This article cites 1 articles, 0 of which you can access for free at:
http://n.neurology.org/content/96/17/e2245.full#ref-list-1

Subspecialty Collections
This article, along with others on similar topics, appears in the following collection(s):
All Demyelinating disease (CNS)
http://n.neurology.org/cgi/collection/all_demyelinating_disease_cns
Gait disorders/ataxia
http://n.neurology.org/cgi/collection/gait_disorders_ataxia
Multiple sclerosis
http://n.neurology.org/cgi/collection/multiple_sclerosis

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