

# Teaching Video NeuroImage: Subacute Cerebellar Ataxia in an Adolescent With Antibodies Against Metabotropic Glutamate Receptor Type 1

Li Ting Goh, MBBS, Furene Sijia Wang, Velda Xinying Han, MRCPCH, and Jeremy Bingyuan Lin, MRCPCH

*Neurology*® 2022;99:862-863. doi:10.1212/WNL.000000000000201268

## Correspondence

Dr. Han  
velda\_han@nuhs.edu.sg

## MORE ONLINE

 **Video**

## Teaching slides

[links.lww.com/WNL/C322](https://links.lww.com/WNL/C322)

A 15-year-old boy developed progressive cerebellar dysfunction over 3 weeks. Examination showed ataxic gait, unsteady tandem gait, horizontal nystagmus, intention tremor, and ataxia on heel-toe-shin testing (Video 1, [links.lww.com/WNL/C323](https://links.lww.com/WNL/C323)). Dysdiadochokinesia and dysarthria were found but not illustrated in the video. Neuroimaging and CSF biochemistry was normal. Serum and CSF metabotropic glutamate receptor type 1 (anti-mGluR1) autoantibodies were found. His cerebellar function improved markedly within 3 months of initiating immunotherapy (Video 1, [links.lww.com/WNL/C323](https://links.lww.com/WNL/C323)). The median age at onset of anti-mGluR1 encephalitis is 55 years.<sup>1,2</sup> Paraneoplastic syndromes should be considered, but anti-mGluR1 encephalitis is more often autoimmune in younger patients.<sup>1,2</sup>

## Acknowledgment

The authors would like to acknowledge and thank Dr. Dimple Rajgor for her assistance in formatting, reviewing, and in submitting the manuscript for publication.

## Study Funding

The authors report no targeted funding.

## Disclosure

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

## Publication History

Received by *Neurology* January 28, 2022. Accepted in final form August 3, 2022. Submitted and externally peer reviewed. The handling editor was Whitley Aamodt, MD, MPH.

---

## Appendix Authors

Name	Location	Contribution
<b>Li Ting Goh, MBBS</b>	Khoo-Teck Puat-National University Children's Medical Institute, National University Health System, Singapore	Drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; analysis or interpretation of data
<b>Furene Sijia Wang</b>	Khoo-Teck Puat-National University Children's Medical Institute, National University Health System, Singapore	Drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; analysis or interpretation of data; Additional contributions: literature search–Velda Han; literature search–Jeremy Lin
<b>Velda Xinying Han, MRCPCH</b>	Khoo-Teck Puat-National University Children's Medical Institute, National University Health System, Singapore	Drafting/revision of the manuscript for content, including medical writing for content; study concept or design; analysis or interpretation of data; Additional contributions: literature search–Furene S. Wang; literature search–Jeremy Lin

---

## Appendix (continued)

Name	Location	Contribution
<b>Jeremy Bingyuan Lin, MRCPCH</b>	Khoo-Teck Puat-National University Children's Medical Institute, National University Health System, Singapore; Department of Paediatrics, Yong Loo Lin School of Medicine, National University of Singapore, Singapore	Drafting/revision of the manuscript for content, including medical writing for content; study concept or design; analysis or interpretation of data; Additional contributions: literature search–Furene S. Wang; literature search–Velda Han

---

## References

1. Spatola M, Petit Pedrol M, Maudes E, et al. Clinical features, prognostic factors, and antibody effects in anti-mGluR1 encephalitis. *Neurology*. 2020;95(22):e3012-e3025. doi: 10.1212/wnl.0000000000010854.
2. Bien CG, Braig S, Bien CL. Antibodies against metabotropic glutamate receptor type 1 in a toddler with acute cerebellitis. *J Neuroimmunol*. 2020;348:577366. doi: 10.1016/j.jneuroim.2020.577366.

---

## Infographics Available on Select Articles

Infographics are an exciting feature available across the *Neurology*<sup>®</sup> journals, providing an engaging and convenient way to understand the information presented in select articles. All infographics are created by a team of scientific writers and illustrators and undergo a rigorous review process involving input and feedback from the author and *Neurology* editors. View a selection of infographics at: [Neurology.org/Infographics](https://www.neurology.org/Infographics)

---

## Call for Voices: Lived Experiences

The Editor of the *Neurology* specialty section Inclusion, Diversity, Equity, Anti-racism, & Social Justice (IDEAS) encourages you to submit short first-person accounts (1,000 words or less) of experiences lived within the realm of IDEAS with the goal of informing and enlightening our community on these critical issues. Some topics to consider include, but are not limited to:

- Descriptions of personal experiences that shaped your views of IDEAS.
- Reflections on the intersection between personal identity and career.
- Discussions at the intersection of IDEAS and neurology patient care, research, education, advocacy, or policy.

Submit your contributions to [journal@neurology.org](mailto:journal@neurology.org) and include “Voices Submission” in the subject line.

# Neurology<sup>®</sup>

## Teaching Video NeuroImage: Subacute Cerebellar Ataxia in an Adolescent With Antibodies Against Metabotropic Glutamate Receptor Type 1

LiTing Goh, Furene Sijia Wang, Velda Xinying Han, et al.

*Neurology* 2022;99:862-863 Published Online before print September 2, 2022

DOI 10.1212/WNL.0000000000201268

**This information is current as of September 2, 2022**

<b>Updated Information &amp; Services</b>	including high resolution figures, can be found at: <a href="http://n.neurology.org/content/99/19/862.full">http://n.neurology.org/content/99/19/862.full</a>
<b>References</b>	This article cites 2 articles, 1 of which you can access for free at: <a href="http://n.neurology.org/content/99/19/862.full#ref-list-1">http://n.neurology.org/content/99/19/862.full#ref-list-1</a>
<b>Subspecialty Collections</b>	This article, along with others on similar topics, appears in the following collection(s): <b>Autonomic diseases</b> <a href="http://n.neurology.org/cgi/collection/autonomic_diseases">http://n.neurology.org/cgi/collection/autonomic_diseases</a> <b>Cerebrospinal Fluid</b> <a href="http://n.neurology.org/cgi/collection/cerebrospinal_fluid">http://n.neurology.org/cgi/collection/cerebrospinal_fluid</a> <b>Encephalitis</b> <a href="http://n.neurology.org/cgi/collection/encephalitis">http://n.neurology.org/cgi/collection/encephalitis</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.

