

Teaching NeuroImages: Prosopagnosia heralding anti-NMDA receptor encephalitis

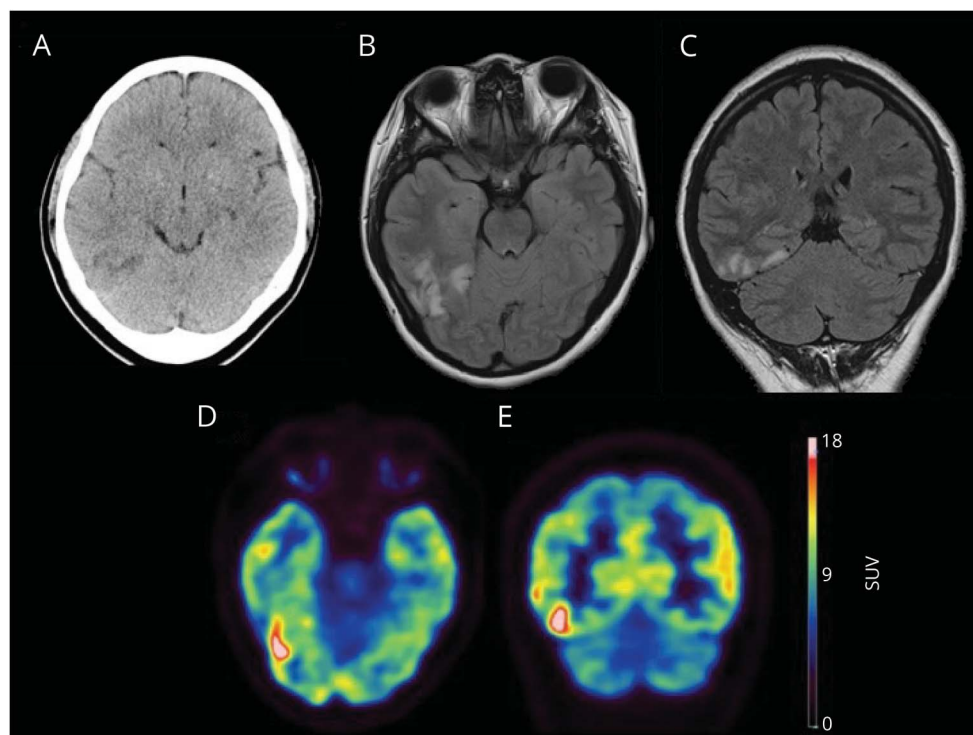
Grayson Beecher, MD, Amanda Nicole Wagner, MD, Jonathan Abele, MD, and Penelope Smyth, MD

Neurology® 2018;90:e2012-e2013. doi:10.1212/WNL.0000000000005611

Correspondence

Dr. Smyth
smyth@ualberta.ca

Figure Neuroimaging findings in anti-NMDA receptor encephalitis presenting with prosopagnosia



(A) CT head reveals right posterior temporal hypodensity. (B) Axial and (C) coronal T2 fluid-attenuated inversion recovery MRI demonstrate high signal in right posterior temporal lobe and fusiform gyrus. (D) Axial and (E) coronal FDG-PET/CT images demonstrate right posterior-inferior temporal hypermetabolism (standardized uptake value 0–18, CIMSNeuro scale, Oasis, Segami Corporation, Columbia, MD).

A 23-year-old right-hand-dominant woman presented with 3 weeks of progressive difficulty recognizing faces, including her own, subsequently developing psychosis. Non-contrast CT head and MRI brain with contrast revealed a nonenhancing lesion of the right posterior temporal lobe and fusiform gyrus, with corresponding hypermetabolism on FDG-PET/CT brain (figure). EEG demonstrated right posterior temporal slowing. CSF and serum anti-NMDA receptor (NMDAR) antibodies were positive, with CT abdomen/pelvis revealing ovarian teratoma. Teratoma removal, plasmapheresis, and 1 cycle of rituximab yielded symptom resolution over 1 month. Anti-NMDAR encephalitis rarely presents with prosopagnosia,¹ and in this case, is likely secondary to right fusiform gyrus dysfunction.²

MORE ONLINE

→Teaching slides

links.lww.com/WNL/A486

Author contributions

Grayson Beecher performed the patient's clinical assessment, wrote the manuscript, and created the figure. Amanda Nicole Wagner assisted in writing the manuscript and figure legend.

From the Department of Medicine (Neurology) (G.B., A.N.W., P.S.) and Department of Radiology & Diagnostic Imaging (J.A.), University of Alberta, Edmonton, Canada.

Go to 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.

Dr. Jonathan Abele reported the FDG-PET/CT imaging findings, provided the figure images, and edited the manuscript. Penelope Smyth assisted in the patient's clinical assessment and performed a critical revision of the manuscript for intellectual content.

Study funding

No targeted funding reported.

Disclosure

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

References

1. Sawamura H, Yamamoto T, Ohtomo R, Bannai T, Wakakura M, Tsuji S. Anti-NMDA receptor encephalitis associated with transient cerebral dyschromatopsia, prosopagnosia, and lack of stereopsis. *J Neuroophthalmol* 2014;34:144–148.
2. Barton JJ. Disorders of higher visual processing. *Handb Clin Neurol* 2011;102:223–261.

Neurology®

Teaching NeuroImages: Prosopagnosia heralding anti-NMDA receptor encephalitis

Grayson Beecher, Amanda Nicole Wagner, Jonathan Abele, et al.

Neurology 2018;90:e2012-e2013

DOI 10.1212/WNL.0000000000005611

This information is current as of May 28, 2018

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/90/22/e2012.full
References	This article cites 2 articles, 0 of which you can access for free at: http://n.neurology.org/content/90/22/e2012.full#ref-list-1
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): MRI http://n.neurology.org/cgi/collection/mri PET http://n.neurology.org/cgi/collection/pet Visual processing http://n.neurology.org/cgi/collection/visual_processing
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 © 2018 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

