

Teaching NeuroImage: Cryptococcal Meningoencephalitis With Cryptococcoma and Gelatinous Pseudocysts

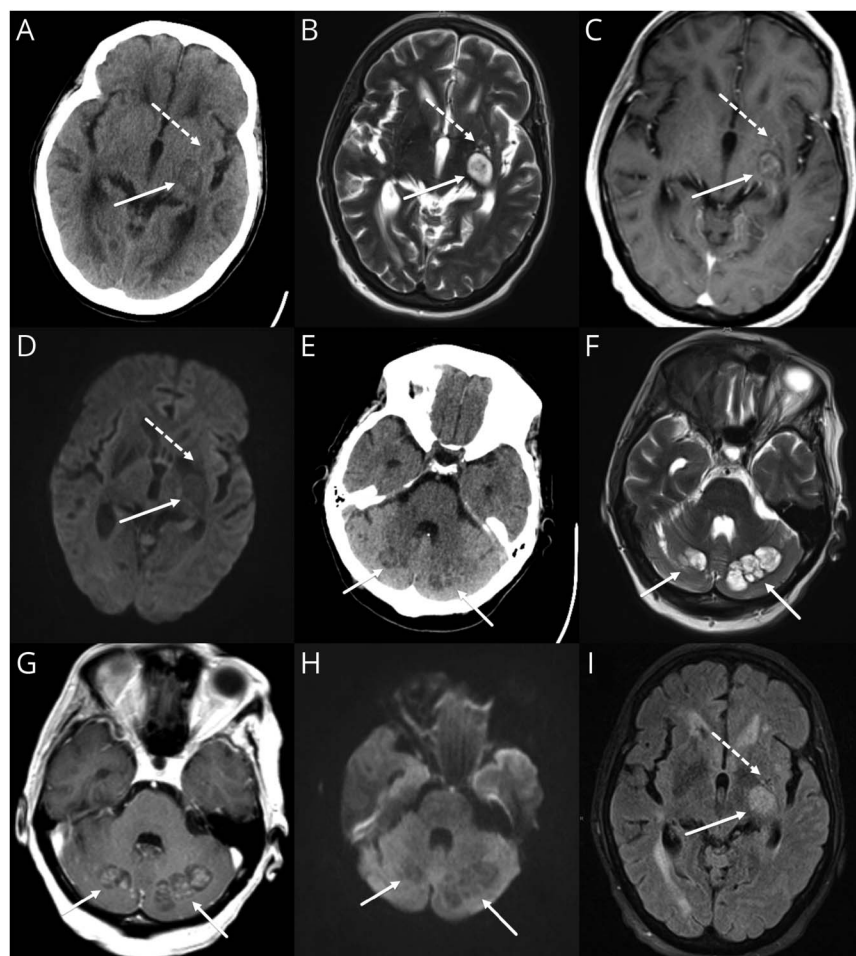
Kelly Trinh, BS, Duc Le, BS, and Anderson Kuo, MD, PhD

Neurology® 2023;101:e782-e783. doi:10.1212/WNL.0000000000207359

Correspondence

Dr. Kuo
anderson.kuo@
midlandhealth.org

Figure Axial CT and MRI Images of the Head



Noncontrast CT (A and E), MRI T2 (B and F), postcontrast T1 (C and G), DWI (D and H), and T2 FLAIR (I) images of the brain. Cryptococcoma (solid arrows) are consolidated areas of infection, appearing as heterogeneous hypodense lesions on CT. On MRI, a lobulated “dirty” T2 appearance with internal enhancement is classic. In contrast to a typical abscess, there is no internal restricted diffusion. Pseudocysts (dashed arrows) are poorly seen on CT, appearing as a vague area of hypodensity. On MRI, they appear as newly enlarged perivascular spaces. Patchy enhancement on postcontrast images and surrounding edema on FLAIR distinguish them from normal perivascular spaces if prior imaging is not available. DWI = diffusion-weighted imaging; FLAIR = fluid-attenuated inversion recovery.

MORE ONLINE

Teaching slides

links.lww.com/WNL/C792

A 66-year-old woman from Venezuela with diabetes and without immunodeficiency presented with headache, dizziness, and lower extremity weakness. Hypodense brain lesions on CT raised

The authors contributed equally to this work.

From the Texas Tech University Health Sciences Center (K.T., D.L.), Lubbock, and Department of Radiology (A.K.), Midland Memorial Hospital, TX.

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.

concern for metastases (Figure, A and E), but full body CTs failed to reveal a primary site. Brain MRI (Figure, B–D, F–I) suggested intracranial cryptococcosus with mass-like cryptococcomas in the cerebelli, left basal ganglia, right temporal lobe, and right occipital lobe and gelatinous pseudocysts manifesting as new dilatation of the perivascular spaces in the left basal ganglia. The diagnosis was confirmed by CSF antigen testing.

While cryptococcosis has been considered a disease of the immunocompromised, rarely immunocompetent individuals can be affected (especially *Cryptococcus gattii*). On imaging, 3 manifestations may be seen: (1) meningeal disease evidenced by meningeal enhancement, (2) extension of the meningeal disease into the perivascular spaces, giving rise to dilatation and cystic areas (pseudocyst formation), and (3) coalescence of the infectious material into frank parenchymal collections (cryptococcomas).¹

Author Contributions

K. Trinh: drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; study concept or design; analysis or interpretation of data.

D. Le: drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; study concept or design; analysis or interpretation of data.
A. Kuo: drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; study concept or design; analysis or interpretation of data.

Study Funding

No targeted funding reported.

Disclosure

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

Publication History

Received by *Neurology* October 30, 2022. Accepted in final form March 15, 2023. Submitted and externally peer reviewed. The handling editor was Resident and Fellow Section Editor Whitley Aamodt, MD, MPH.

Reference

1. Xia S, Li X, Li H. Imaging characterization of cryptococcal meningoencephalitis. *Radiol Infect Dis*. 2016;3(4):187-191. doi:10.1016/J.JRID.2016.05.003

Neurology®

Teaching NeuroImage: Cryptococcal Meningoencephalitis With Cryptococcoma and Gelatinous Pseudocysts

Kelly Trinh, Duc Le and Anderson Kuo

Neurology 2023;101:e782-e783 Published Online before print May 2, 2023

DOI 10.1212/WNL.0000000000207359

This information is current as of May 2, 2023

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/101/7/e782.full
References	This article cites 1 articles, 0 of which you can access for free at: http://n.neurology.org/content/101/7/e782.full#ref-list-1
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): CT http://n.neurology.org/cgi/collection/ct Encephalitis http://n.neurology.org/cgi/collection/encephalitis Fungal infections http://n.neurology.org/cgi/collection/fungal_infections Meningitis http://n.neurology.org/cgi/collection/meningitis MRI http://n.neurology.org/cgi/collection/mri
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 © 2023 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

