

Teaching NeuroImages: Neuroimaging in hemiplegic migraine

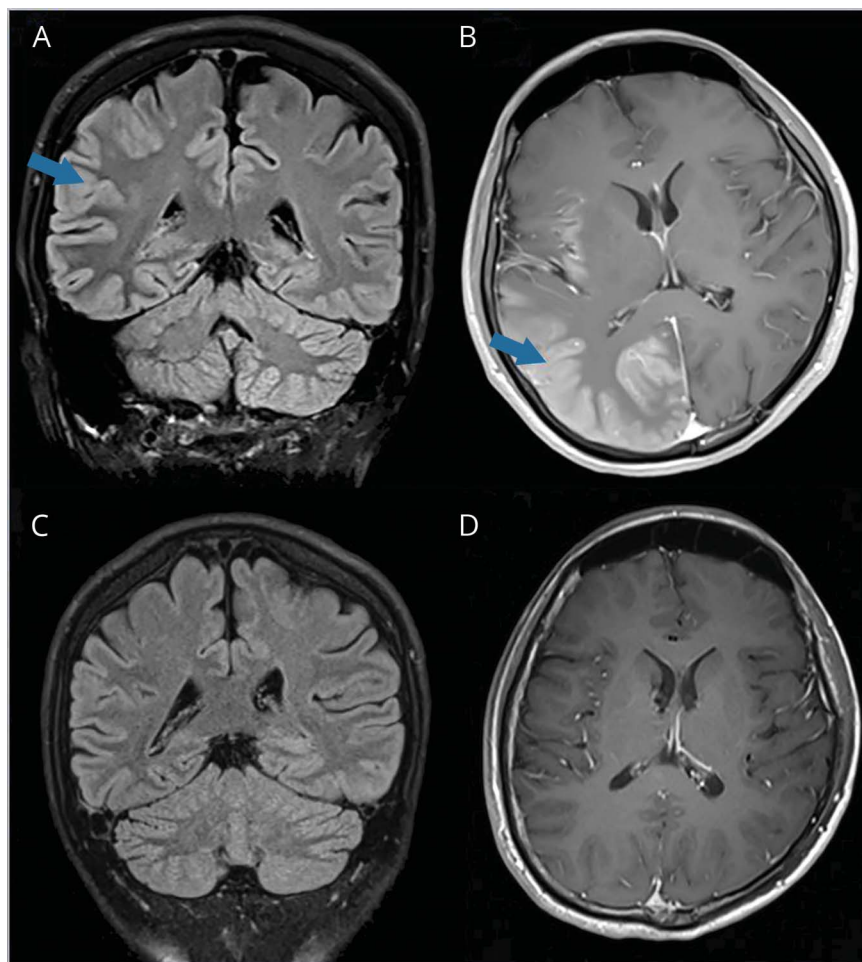
Tze Yuan Tee, MRCP, Ching Soong Khoo, MRCP, Azman Ali Raymond, FRCP, and Sharis Osman Syazarina, MMed (Radiology)

Neurology® 2019;93:e626-e627. doi:10.1212/WNL.0000000000007905

Correspondence

Dr. Khoo
chingsoongkhoo@gmail.com

Figure Brain MRI



T2 fluid-attenuated inversion recovery (FLAIR) MRI sequence on coronal plane (A) shows cortical swelling involving the right temporoparietal occipital regions with subtle high signal intensity (arrow). The cortical swelling exhibits gyriform enhancement on T1 postgadolinium sequence (B). Follow-up MRI on T2 FLAIR sequence on coronal (C) and T1 postgadolinium sequence on axial plane (D) shows complete resolution of cortical swelling and enhancement.

A 31-year-old man with hemiplegic migraine presented with a 2-day history of severe right-sided throbbing headache, photophobia, and vomiting. They were associated with numbness and weakness of the left hand, which spread to his left face and left leg. Brain MRI (figure) revealed cortical swelling involving the right temporoparietal occipital region (A) with subtle high signal intensity, which exhibited gyriform enhancement (B). He recovered 12 days later. Follow-up MRI was normal (C, D). Hemiplegic migraine attacks can manifest from temporary hemiparesis to recurrent coma and prolonged hemiparesis, epilepsy, or mental retardation.¹

MORE ONLINE

→ Teaching slides

links.lww.com/WNL/A937

From the Neurology Unit (C.S.K., A.A.R.), Department of Medicine (T.Y.T.), and Department of Radiology (S.O.S.), Universiti Kebangsaan Malaysia Medical Centre, Kuala Lumpur, Malaysia.

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.

MRI abnormalities could only be detected in a few cases depending on the scan timing. Long-lasting migraine aura is not associated with cerebral ischemia as follow-up imaging proves the resolution of cortical changes during the acute attack.²

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. Russell MB, Ducros A. Sporadic and familial hemiplegic migraine: pathophysiological mechanisms, clinical characteristics, diagnosis, and management. *Lancet Neurol* 2011; 10:457–470.
2. Oberndorfer S, Wöber C, Nasel C, et al. Familial hemiplegic migraine: follow-up findings of diffusion-weighted magnetic resonance imaging (MRI), perfusion-MRI and [^{99m}Tc] HMPAO-SPECT in a patient with prolonged hemiplegic aura. *Cephalalgia* 2004;24:533–539.

Appendix Authors

Name	Location	Role	Contribution
Tze Yuan Tee, MRCP (UK)	Department of Medicine, Universiti Kebangsaan Malaysia Medical Centre	Author	Execution, writing of the first draft, review and critique
Ching Soong Khoo, MRCP (UK)	Neurology Unit, Department of Medicine, Universiti Kebangsaan Malaysia Medical Centre	Author	Writing of the first draft, review and critique
Azman Ali Raymond, FRCP	Neurology Unit, Department of Medicine, Universiti Kebangsaan Malaysia Medical Centre	Author	Execution, review and critique
Sharis Osman Syazarina, MMED (Radiology)	Department of Radiology, Universiti Kebangsaan Malaysia Medical Centre	Author	Review and critique, MRI description

Neurology®

Teaching NeuroImages: Neuroimaging in hemiplegic migraine

Tze Yuan Tee, Ching Soong Khoo, Azman Ali Raymond, et al.

Neurology 2019;93:e626-e627

DOI 10.1212/WNL.0000000000007905

This information is current as of August 5, 2019

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/93/6/e626.full
References	This article cites 2 articles, 0 of which you can access for free at: http://n.neurology.org/content/93/6/e626.full#ref-list-1
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): Computer use in education http://n.neurology.org/cgi/collection/computer_use_in_education Migraine http://n.neurology.org/cgi/collection/migraine 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 © 2019 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

