Teaching *NeuroImages*: Periventricular restricted diffusion MRI in CMV ventriculitis

Jae-Won Hyun, MD
Su-Hyun Kim, MD
In Hye Jeong, MD
Sang Hyun Lee, MD,
PhD
Hyeon-Seok Eom, MD,
PhD
Ho Jin Kim, MD, PhD

Correspondence to
Dr. Kim:
hojinkim@ncc.re.kr

Figure Cranial MRI scan

Diffusion-weighted MRI shows high signal intensity (A) with corresponding low apparent diffusion coefficient values (B) and subtle contrast enhancement (C) along both lateral ventricular walls.

A 43-year-old man with diffuse large B-cell lymphoma who underwent chemotherapy for 5 months presented subacutely with decreased level of consciousness. No remarkable finding on neurologic examination was observed except drowsy mental status. Brain MRI revealed periventricular linear diffusion restriction and subtle contrast enhancement along both lateral ventricular walls, which is a characteristic feature of cytomegalovirus (CMV) ventriculitis¹ (figure). CSF PCR was positive for CMV. Treatment with ganciclovir and foscarnet² led to gradual improvement of conscious level for 6 weeks.

AUTHOR CONTRIBUTIONS

Study concept and design: H.J. Kim, J.-W. Hyun. Acquisition of data: H.J. Kim, J.-W. Hyun, S.-H. Kim, I.H. Jeong, H.-S. Eom. Critical revision of the manuscript for important intellectual content: H.J.

Kim, J.-W. Hyun, S.-H. Kim, I.H. Jeong, S.H. Lee, H.-S. Eom. Study supervision: H.J. Kim.

STUDY FUNDING

No targeted funding reported.

DISCLOSURE

J. Hyun, S. Kim, I. Jeong, S. Lee, and H. Eom report no disclosures relevant to the manuscript. H. Kim has given talks, consulted, and received honoraria or research support from Bayer Schering Pharma, Biogen Idec, Genzyme, Kael-GemVax, Merck Serono, Novartis, Teva-Handok, and UCB. He serves on a steering committee for MedImmune. Go to Neurology.org for full disclosures.

REFERENCES

1. Seok JH, Ahn K, Park HJ. Diffusion MRI findings of cytomegalovirus-associated ventriculitis: a case report. *Br J Radiol* 2011;84:e179–e181.
2. Janowicz DM, Johnson RM, Gupta SK. Successful treatment of CMV ventriculitis immune reconstitution syndrome. *J Neurol Neurosurg Psychiatry* 2005;76:891–892.

Neurology®

Teaching *NeuroImages*: Periventricular restricted diffusion MRI in CMV ventriculitis

Jae-Won Hyun, Su-Hyun Kim, In Hye Jeong, et al.

Neurology 2015;84:e121

DOI 10.1212/WNL.0000000000001497

This information is current as of April 20, 2015

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/84/16/e121.full
Supplementary Material	Supplementary material can be found at: http://n.neurology.org/content/suppl/2015/04/19/WNL.0000000000001497.DC1
References	This article cites 2 articles, 2 of which you can access for free at: http://n.neurology.org/content/84/16/e121.full#ref-list-1
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): All Clinical Neurology http://n.neurology.org/cgi/collection/all_clinical_neurology All Oncology http://n.neurology.org/cgi/collection/all_oncology Encephalitis http://n.neurology.org/cgi/collection/encephalitis MRI http://n.neurology.org/cgi/collection/mri Viral infections http://n.neurology.org/cgi/collection/viral_infections
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 © 2015 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.