Teaching NeuroImages: Isolated pineal hemorrhage

Andrew J. Westwood,
MD

Joseph D. Burns, MD

Carlos S. Kase, MD

Address correspondence and
reprint requests to Dr. Andrew J.
Westwood, Department of
Neurology, Boston University
School of Medicine, 72 E.
Concord Street, C3, Boston, MA
02118
andrew.westwood@bmc.org

Figure 1 Noncontrast head CT

Noncontrast head CT shows acute obstructive hydrocephalus and an enlarged, hyperdense pineal with peripheral calcification.

An 80-year-old woman with a history of hypertension and deep vein thrombosis, who was taking warfarin, presented with sudden-onset coma. Examination was remarkable for wall-eyed bilateral internuclear ophthalmoplegia, small minimally reactive pupils, and sponta-

neous flexor posturing of the arms. These findings localized to the midbrain and suggested the presence of acute hydrocephalus with compression of the periaqueductal structures of the rostral mesencephalon.¹

The findings and initial imaging (figure 1) were consistent with pineal apoplexy.² After ventriculostomy placement, coagulopathy reversal, and control of blood pressure, the patient made a complete recovery with normal cognition, eye movements, and motor function at discharge (figure 2).

AUTHOR CONTRIBUTIONS

Drs. Westwood, Burns, and Kase had full access to all of the data in the manuscript and take responsibility for the integrity of the data and the accuracy of the data analysis. Concept and design: Westwood, Kase, and Burns. Acquisition of data: Westwood and Kase. Analysis and interpretation of data: Westwood, Burns, and Kase. Drafting of the manuscript: Westwood. Critical revision of the manuscript for important intellectual content: Burns and Kase. Supervision: Kase and Burns.

REFERENCES

1. Jacob JT, Burns JA, Dupont SA, Lanzino G, Wijdicks EF. Wall-eyed bilateral internuclear ophthalmoplegia after ruptured aneurysm. *Arch Neurol* 2010;67:636–637.
2. Patel AJ, Fuller GN, Wildrick DM, Sawaya R. Pineal cyst apoplexy: case report and review of the literature. *Neurosurgery* 2005;57:E1066.

Figure 2 T1-weighted sagittal MRI

(A) Hospital day 4: T1-weighted sagittal MRI shows mixed isointense and hyperintense signal within the pineal, consistent with maturing hemorrhage, compressing the rostral midbrain and the aqueduct. (B) Resolution is seen 5 months later.

From the Departments of Neurology (A.J.W., J.D.B., C.S.K.) and Neurosurgery (J.D.B.), Boston University School of Medicine, Boston, MA.

Disclosure: Dr. Westwood serves on an editorial advisory board for onExamination, an online BMJ learning resource based in the UK. Dr. Burns serves as Review Editor for *Frontiers in Hospitalist Neurology* and receives research support from CardioNet. Dr. Kase serves on scientific advisory boards for sanofi-aventis and Lundbeck Inc. and receives research support from the NIH (NHLBI, NINDS).

Neurology®

Teaching *NeuroImages*: Isolated pineal hemorrhage

Neurology 2011;77:e95

DOI 10.1212/WNL.0b013e318233b37f

This information is current as of October 17, 2011

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/77/16/e95.full
References	This article cites 2 articles, 0 of which you can access for free at: http://n.neurology.org/content/77/16/e95.full#ref-list-1
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): All Cerebrovascular disease/Stroke http://n.neurology.org/cgi/collection/all_cerebrovascular_disease_stroke CT http://n.neurology.org/cgi/collection/ct Intracerebral hemorrhage http://n.neurology.org/cgi/collection/intracerebral_hemorrhage 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 Copyright © 2011 by AAN Enterprises, Inc.. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.