Teaching *NeuroImages*: Duret hemorrhage due to bilateral subdural hematomas causing internuclear ophthalmoplegia

Rob P.W. Rouhl, MD,
PhD
Alida A. Postma,
MD, PhD

Correspondence & reprint
requests to Dr. Rouhl:
R.Rouhl@mumc.nl

A 67-year-old man with a clinical history of atrial fibrillation and oral anticoagulant use presented with headache and vomiting, rapidly deteriorating to coma in a few hours. CT showed bilateral subdural hematomas with transtentorial herniation and brainstem compression (figure). Decompressive burr holes were made bilaterally. Postoperative recovery was unremarkable except for a left-sided anterior internuclear ophthalmoplegia (paralysis of adduction of the left eye on right lateral gaze with preserved convergence).

Subsequent MRI showed a focal lesion at the central part of the mesencephalon interpreted as a Duret hemorrhage (shown in the figure). Generally, a Duret hemorrhage is considered a serious, often fatal, complication of brain herniation,¹ however, subtle neurologic deficits, such as internuclear ophthalmoplegia, may be its only sign.

AUTHOR CONTRIBUTIONS

R.P.W. Rouhl, MD, PhD, contributed to drafting and revising the manuscript for (medical) content and the analysis and interpretation of the data. A.A. Postma, MD, PhD, contributed to drafting and revising the manuscript for (medical) content and analysis and interpretation of data.

REFERENCE

1. Stiver SI, Gean AD, Manley GT. Survival with good outcome after cerebral herniation and Duret hemorrhage caused by traumatic brain injury. *J Neurosurg* 2009;110:1242–1246.

Figure Imaging

CT shows bilateral subdural hematomas (A) and central and uncus transtentorial herniation with brainstem compression (B). T2-weighted image (C) shows a small region of hyperintensity medial in the left midbrain at the medial longitudinal fasciculus and oculomotor nucleus, with susceptibility artifacts at the T2* image (D), corresponding to hemosiderin.

Neurology®

Teaching *NeuroImages*: Duret hemorrhage due to bilateral subdural hematomas causing internuclear ophthalmoplegia

Rob P.W. Rouhl and Alida A. Postma

Neurology 2012;79:e101

DOI 10.1212/WNL.0b013e31826aacc3

This information is current as of September 17, 2012

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/79/12/e101.full
References	This article cites 1 articles, 0 of which you can access for free at: http://n.neurology.org/content/79/12/e101.full#ref-list-1
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): Brain trauma http://n.neurology.org/cgi/collection/brain_trauma MRI http://n.neurology.org/cgi/collection/mri Ocular motility http://n.neurology.org/cgi/collection/ocular_motility
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 © 2012 by AAN Enterprises, Inc.. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.