

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

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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.

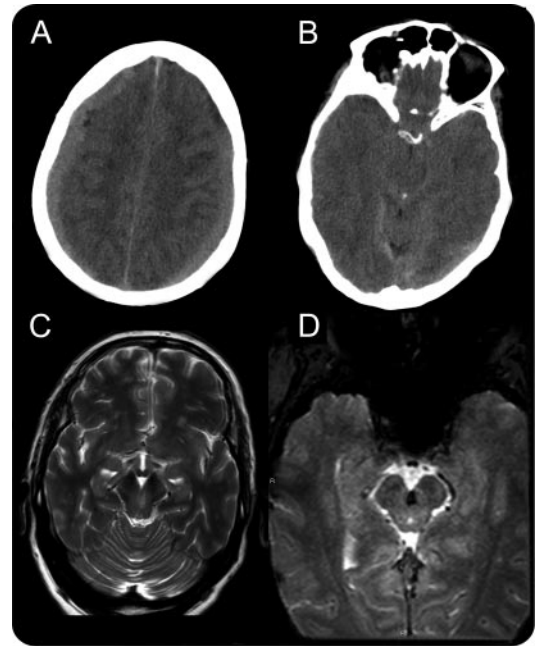
AUTHOR CONTRIBUTIONS

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.

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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.

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