Teaching NeuroImages:
Isolated pineal hemorrhage

Andrew J. Westwood, MD
Joseph D. Burns, MD
Carlos S. Kase, MD

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 spontaneous 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).

REFERENCES

Figure 1  Noncontrast head CT

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

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.

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