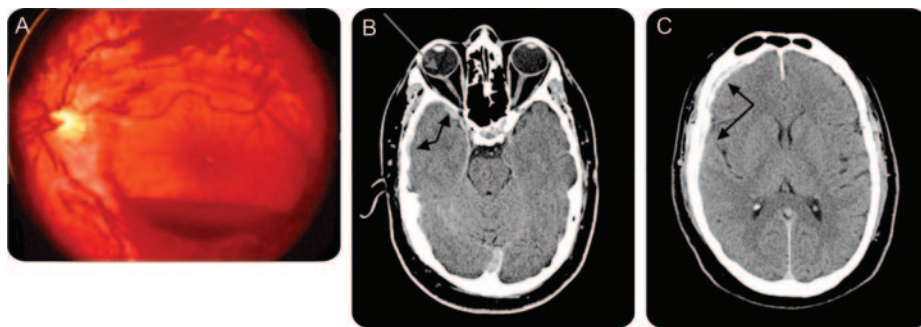


Teaching NeuroImages: Middle cerebral artery aneurysm rupture presenting as pure acute subdural hematoma

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Figure 1 Fundusoscopic photograph



(A) Subhyaloid hemorrhage from another patient, and axial CT scan (B, C) shows right-sided subdural hematoma with no subarachnoid or intraventricular blood (black arrows) and subhyaloid hemorrhage (gray arrow). Photograph reprinted with permission from www.neuroophthalmology.ca.

A previously well 33-year-old man with no history of trauma or substance abuse presented with poor right eye visual acuity, somnolence, and vomiting several hours after sudden onset of severe, persistent headache. Examination revealed only a right relative afferent papillary defect and subretinal blood on funduscopy (Terson syndrome, figure 1A). Hunt and Hess grade was 3.

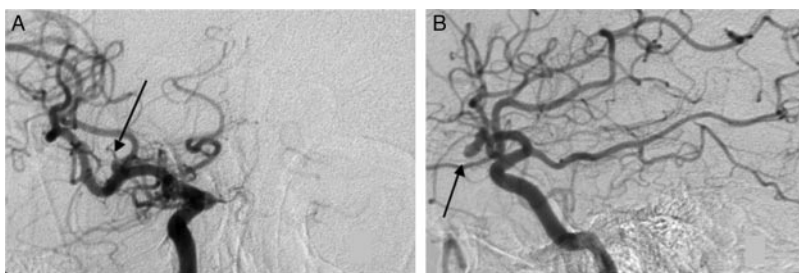
CT showed right subdural and subhyaloid hemorrhages (figure 1, B and C). Angiography re-

vealed a right middle cerebral artery aneurysm (figure 2).

Aneurysm rupture rarely presents as pure acute subdural hematoma. Proposed mechanisms involve direct aneurysm rupture into subdural space, from orientation, adherence to dura, or rupture through subarachnoid space by a superficial or high-pressure bleed.¹

Terson syndrome refers to intraocular hemorrhage with aneurysm rupture. Proposed pathophysiology includes retinal venous bleeding from stasis secondary to increased intracranial pressure, or from blood forced into the subarachnoid space and then along the optic nerve sheath into the preretinal space under pressure.²

Figure 2 Digital subtraction right carotid angiography



Coronal (A) and sagittal (B) views demonstrating bilobed aneurysm at the middle cerebral artery trifurcation. There was no evidence of an arteriovenous dural fistula.

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