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The shifting etiologies of lobar hemorrhage

PRESENTATION

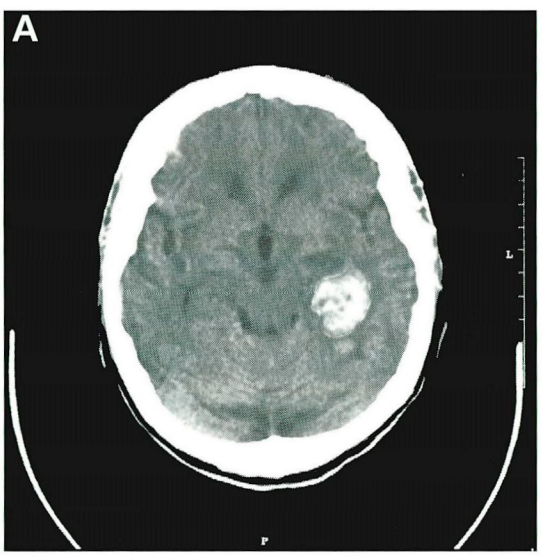
A 73-year-old woman presented to the emergency department with confusion after vomiting and then falling in the bathroom. On examination, she was conscious and lethargic. Her blood pressure was 158/100 mm Hg, although she was not known to be hypertensive previously. She had a history of atrial fibrillation but was receiving no anticoagulant therapy.

A noncontrast computed tomographic (CT) scan showed an ovoid area of high attenuation in the posterior temporal lobe on the left side (A), indicating a lobar intracerebral hemorrhage.

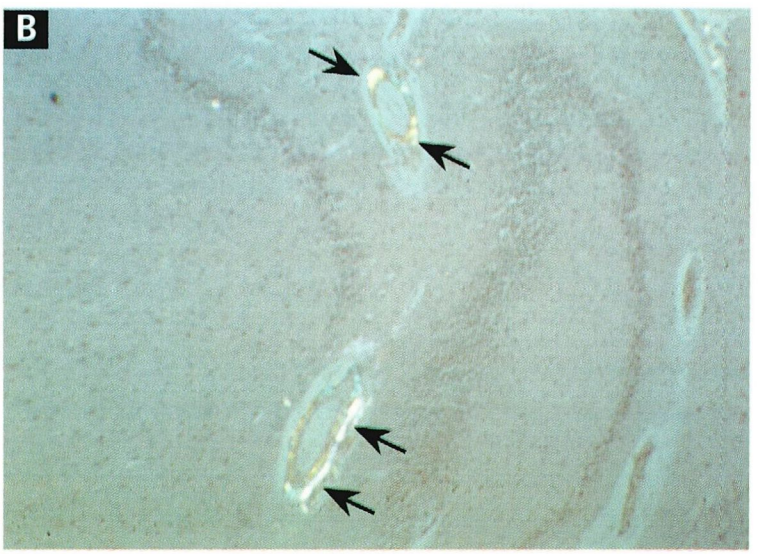
DISCUSSION

Intracerebral hemorrhage due to hypertension typically occurs in the basal ganglia and brain stem, with only 10% of such hemorrhages affecting the cerebral lobes. However, improvements in the treatment of hypertension have reduced the incidence of hypertensive brain hemorrhage. Amyloid angiopathy (B) has become the most common cause of nonhypertensive brain hemorrhage in the elderly. Other causes of lobar hemorrhages include tumors, aneurysms, anticoagulant therapy, and bleeding into arteriovenous malformations.

Noncontrast CT scanning is the preferred imaging technique for patients with acute neurological events, as it can reveal intracranial hemorrhages readily and distinguish them from ischemic events, which may not be visible in the acute phase. A contrast CT or magnetic resonance (MR) study might be useful after a noncontrast study to detect any neoplasms, arterial venous malformations, or aneurysms.



A noncontrast CT scan of a lobar hemorrhage, showing a 3-cm ovoid area of high attenuation in the posterior temporal lobe on the left side.



Amyloid angiopathy, stained with Congo red and viewed through polarized light. This technique shows the "apple-green birefringence" (arrows) characteristic of amyloid deposits in the vessel wall (× 250).