

Headache and ptosis for four months: potential mimickers of intraparenchymal hemorrhage

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Received: 13 October 2014 / Accepted: 17 October 2014 / Published online: 30 October 2014
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Case

A 65-year-old woman with hypertension presented with daily headaches and partial left ptosis for four months. The physical examination was notable for a blood pressure of 190/110 mmHg, left ptosis, and slight rightward tongue deviation. Computed tomography of the head without intravenous contrast material was obtained for evaluation for hemorrhage (Fig. 1).

Diagnosis

Large basilar tip aneurysm mimicking intraparenchymal hemorrhage

Computed tomography demonstrated a hyperdense collection in the left thalamus (Fig. 1), originally thought to represent hemorrhage. Computed tomographic angiography, however, showed that the collection represented an unruptured basilar tip aneurysm (Fig. 2). The patient underwent uncomplicated surgical clipping.

Cerebral aneurysms commonly arise at bifurcations within the Circle of Willis. Upwards of 90 % arise within the anterior circulation, while approximately 10 %, as demonstrated in this case, arise within the posterior circulation, with an overall incidence of 2.3 % [1]. Individuals with unruptured aneurysms are usually asymptomatic. Cranial neuropathies and thromboembolic events are rare.

Unruptured aneurysms containing thrombus will appear hyperdense on unenhanced computed tomography of the head, potentially mimicking acute hemorrhage [1]. Differentiating aneurysm and hemorrhage is critical as management of the two conditions varies drastically. Computed tomographic angiography is the imaging modality of choice, with 95 % sensitivity for detecting aneurysms greater than 2 mm [2].



Fig. 1 Single axial computed tomograph of the head without intravenous contrast material demonstrating a 2.2×1.7 cm hyperdense collection within the left thalamus, originally thought to represent a left thalamic hemorrhagic (solid arrows). Subsequent imaging revealed that this collection actually represented a large basilar tip aneurysm

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Fig. 2 Single coronal computed tomographic angiography image with intravenous contrast demonstrating a large basilar tip aneurysm measuring 17 mm in length (*solid arrows*), arising between the left posterior communicating and left superior cerebellar arteries

Management options for unruptured aneurysms include expectant management, surgical clipping, and endovascular therapy [3]. Management decisions depend on the size and location of the aneurysm, patient anatomy, and comorbid conditions [4].

Conflict of interest None.

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