

Intracranial Cavernous Angioma

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Section: Neuroradiology

Imaging Technique: CT

Imaging Technique: MR

Case Type: Clinical Cases

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Patient: 19 years, female

Clinical History:

Acute headache and vomiting. Four months before, several episodes of seizures and dysarthria. Clinical examination showed right lateral homonymous hemianopsia and right hemiparesia. EEG evidenced dysrhythmias of the left hemisphere.

Imaging Findings:

The patient was admitted with acute headache and vomiting. Four months before, she had several episodes of seizures and dysarthria. Clinical examination showed right lateral homonymous hemianopsia and right hemiparesia. EEG evidenced dysrhythmias of the left hemisphere. CT scan and MRI of the brain were performed.

Discussion:

Cavernous malformation (cavernoma) of the brain may exhibit a pseudotumoral behaviour by formation of hematoma. This vascular malformation differs completely from the cavernous hemangioma, which is a real tumor, occurring occasionally in the CNS and nosologically close to the lingual or orbital hemangiomas. Cavernous malformation, angiographically occult, is particularly well demonstrated by MRI, because of its high specificity for the detection of degradation products of hemoglobin. The MRI presentation is pathognomonic. Macroscopically, cavernous malformation is composed of a cluster of dilated vessels without interposed glial or nervous tissue. The rupture of the wall of these vascular cavities can be at the origin of hemorrhage. According to Simard, almost all patients with cavernous malformation show gross or microscopical evidence of repeated hemorrhage. Although usually hematomas occur inside the malformation, in this case the malformation gave rise to a large hematoma located outside the lesion responsible for the onset of symptoms.

Differential Diagnosis List: Intracranial Cavernous Angioma

Final Diagnosis: Intracranial Cavernous Angioma

References:

Ferrante L, Palma L, D Addetta R et al. Intracranial cavernous angioma. *Neurosurg Rev* 1992; 15: 125-133. (PMID: [1635629](#))

Lasjaunias P, Berenstein A. Endovascular treatment of cerebral lesions in: *Surgical Neuroangiography*, Springer Verlag 1992; 4: 82.

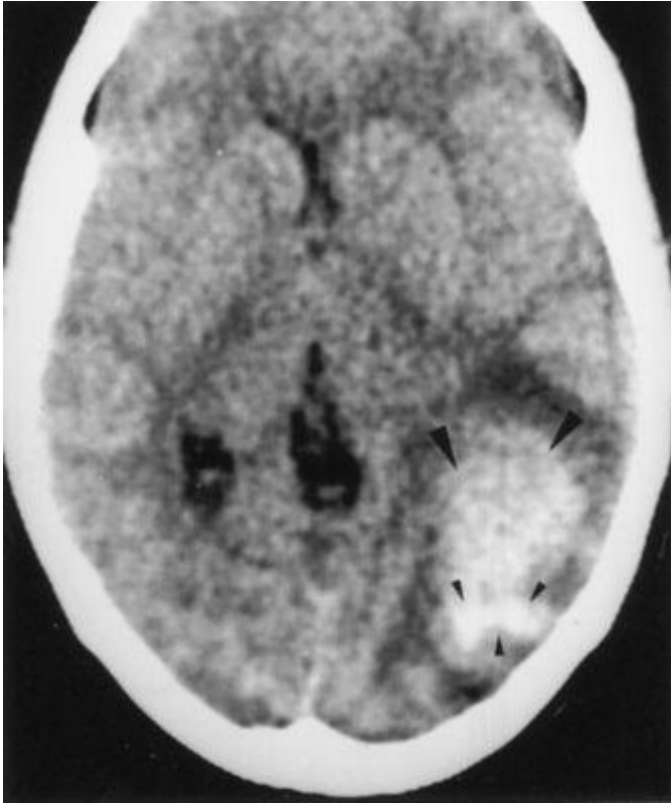
Lechevalier B, Houteville JP. Intracranial cavernous angioma. *Rev Neurol* 1992; 148: 173-179. (PMID: [1604130](#))

Simard JM, Garcia-Bengochea F, Bellinger WE et al. Cavernous angioma: a review of 126 collected and 12 new

clinical cases. Neurosurg 1986; 18: 162-172. (PMID: [3960293](#))

Figure 1

a



Description: Non-enhanced CT scan shows a mass of 5 cm in diameter, located in the left parieto-occipital region, with 2 different components: the large anterior part (arrowheads) is slightly hyperdense compared to normal brain, the smaller posterior part is strongly hyperdense (small arrowheads). **Origin:**

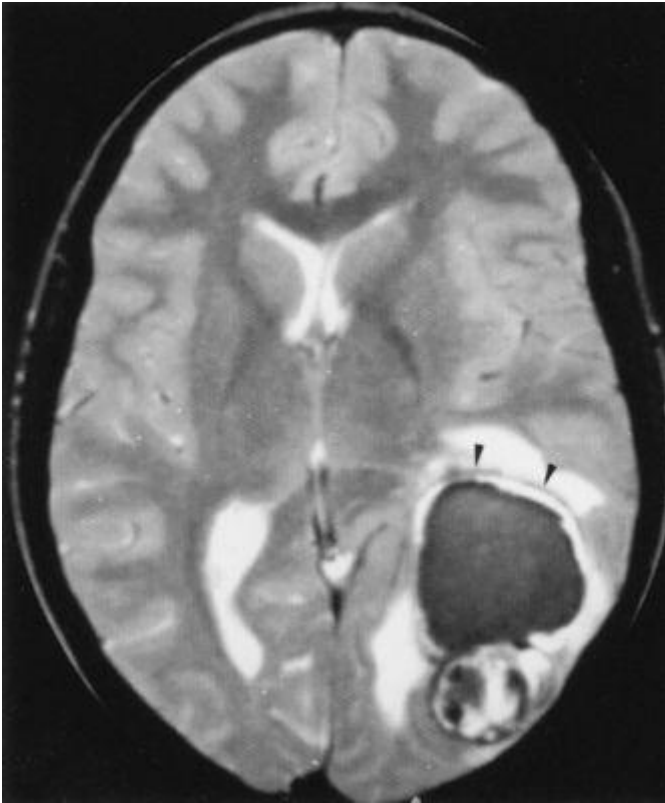
Figure 2

a



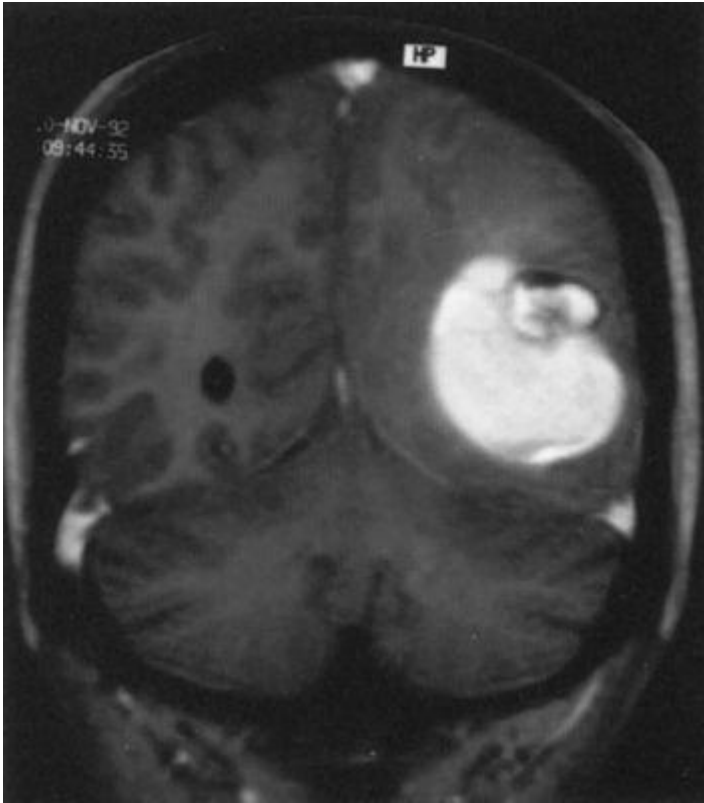
Description: On SE proton density images, two distinct portions of the lesion are identified: the anterior part in a subcortical location is hyperintense. **Origin:**

b



Description: On SE T2-weighted images, the anterior portion shows a large homogeneous hypointensity in the center, and a hyperintense periphery around a fine hypointense rim (arrowheads). The posterior portion shows mixed intensities. **Origin:**

C



Description: Coronal SE T1-weighted images after intravenous administration of contrast medium show no enhancement and confirm the supratentorial location of the mass. The smaller heterogeneous component is situated superficially in the brain, and the larger component is in deeper location. **Origin:**