Atypical Course of Perimesencephalic Subarachnoid Hemorrhage: Diagnostic and Management Challenges.

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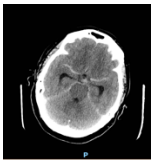
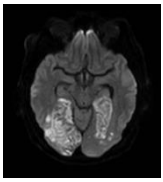
Non-aneurysmal PMH is characterized by a hemorrhagic pattern confined to the perimesencephalic cisterns

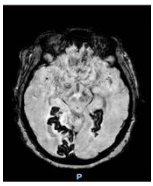
- Favorable clinical course (mRS 0–2 at discharge in 99% of cases).
- Low incidence of short-term complications.
- Diagnostic evaluation is typically conservative[1].

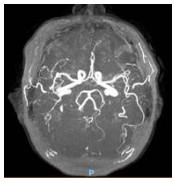


A 57-year-old woman presented to the emergency department with acute onset of headache, vomiting, and neck pain resistant to medical therapy, lasting approximately 5 hours. On admission, her blood pressure was 200/100 mmHg. She was started on preventive intravenous nimodipine. CT angiography of the intracranial vessels (CTA) and digital subtraction angiography (DSA) showed no vascular malformations or vasospasm.

Thirty-six hours after onset, due to deterioration of consciousness, the patient underwent an urgent brain CT, followed by brain MRI with MR angiography of the intracranial vessels.







DSA performed at 7 days confirmed the absence of vascular malformations and vasospasm. Within the context of venous drainage occurring with preserved timing, the radiologists noted a type B drainage pattern of the basal vein of Rosenthal, which has not been associated with PMH in the literature[3].

Any other possible causes?

- Cardiac evaluation was unremarkable (echocardiography and rhythm monitoring).
- Autoimmune and thrombophilia screening were negative, except for ANA titer 1:80.

The patient was discharged in good clinical condition (NIHSS 0, mRS 0). At the 3-month follow-up, she reported only mild deficits in short-term memory and concentration.

So, what was the underlying cause of the ischemic lesions?

- Unusually early vasospasm (<36 h), without radiological confirmation, in a condition where DCI is rare?
- Cardioembolic or autoimmune etiology not yet ruled out?
- Alternative mechanisms such as acute hypoperfusion, platelet activation, or microthrombosis[2]?

References

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3. Nonaneurysmal Perimesencephalic Hemorrhage Is Associated with Deep Cerebral Venous Drainage Anomalies: A Systematic Literature Review and Meta-Analysis. American Journal of Neuroradiology Sep 2016, 37 (9) 1657-1663; **DOI:** 10.3174/ajnr.A4806