Recurrent intracerebral haemorrhage—a diagnostic challenge

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Abstract

**Background:** Lobar intracerebral haemorrhage may be due to various causes but often etiology remains undetermined.

**Case Report:** a 56-year-old woman, with prior medical history of Hashimoto’s thyroiditis and alopecia areata, was admitted to the emergency department with a 3-day history of a right-sided thunderclap headache, nausea and vomiting. She had had a total of 15 mg zolmitriptane during this period. Head CT and MRI studies showed a right parieto-Occipital intracerebral haemorrhage (ICH) and a left frontal subarachnoid haemorrhage (SAH). Angiogram revealed multiple areas of segmental narrowing involving branches of the left posterior cerebral artery (PCA), both middle cerebral arteries (MCA) and both anterior cerebral arteries (PCA). She started on nimodipine 60 mg/day and a 5-day course of methylprednisolone (MP) and 11 days later the angiogram showed partial reversion of the segmental stenosis. She was discharged with a possible diagnosis of reversible vasoconstriction cerebral syndrome (RVCS), medicated with nimodipine.

Two months later she had a new episode of bilateral frontal-temporal thunderclap headache precipitated by Valsalva maneuver. On admission, neurologic exam was normal. This time there was no recent history of triptans ingestion. Head CT and MRI showed a right frontal ICH and a right superior frontal sulcus SAH, with no white matter changes. Angiogram revealed focal stenosis of intracranial arteries, mainly MCA (bilateral) and left ACA. Cerebrospinal fluid (CSF) examination was unremarkable and autoimmune serology was only positive for thyroid antibodies. The headache resolved after a 5-day course of MP and she was discharged with corticosteroid therapy.

**Conclusions:** Diagnosis of primary angiitis of the CNS (PACNS) should be considered in the presence of the CSF, MRI and angiogram findings, in the absence of serologic or clinical evidence of systemic vasculitis. However, RVCS cannot be ruled out, considering the clinical course and the more frequent association with haemorrhage. In fact, RCVS is considered one of the most common angiographic mimics of PACNS.