Endovascular treatment of a ruptured posterior cerebral artery aneurysm in an infant: a case report

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ORAL PRESENTATION

Introduction: Intracranial arterial aneurysms in the paediatric population are rare and may be asymptomatic until rupture. Posterior circulation aneurysms are uncommon (10%) but have higher rupture risk. Endovascular treatment of these aneurysms is challenging not only due to the small size of child vessels, but also due to the risk of life threatening complications in the posterior circulation territories.

Case Report: An eleven-month old infant presented with hyporeactivity, vomiting, seizures, convergent strabismus, arterial hypertension and a bulging anterior fontanelle. No gestational or postnatal complications were reported until then. On admission, head CT scan and MRI were performed, showing signs of acute right temporo-parieto-occipital ischemic stroke, and subdural and subarachnoid haemorrhage. MRI revealed a partially thrombosed small saccular aneurysm (berry aneurysm) of the ipsilateral distal posterior cerebral artery (P3/P4 segments). The patient was submitted to therapeutic angiography on the following day. The aneurysm was approached by the ipsilateral posterior communicating artery (embryonic origin of the posterior cerebral artery) and embolized with coils. Complete exclusion was obtained without complications. The patient was discharged after 10 days with no sequelae, apart from mild ophthalmologic defects.

Conclusion: Posterior cerebral artery aneurysms are rare, representing 1% of intracranial aneurysms. Saccular forms are more common in children; and are also associated with a higher risk of rupture, frequently presenting as subarachnoid haemorrhage. Angiography remains the gold standard, in addition to enabling endovascular treatment. Ruptured brain aneurysms can be life threatening and immediate action is crucial to minimize brain damage.

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