

## NONANEURYSMAL SULCAL SUBARACHNOID HAEMORRHAGE IN A PATIENT WITH ATHEROSCLEROTIC INTRACRANIAL STENOSIS

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### Background

Nonaneurysmal sulcal subarachnoid haemorrhage (sSAH) is a rare cause of cerebrovascular disease and represents a small proportion of nontraumatic SAH.

A few cases of sSAH in patients with extracranial atherosclerotic disease have been reported. However, the association of sSAH with intracranial atherosclerotic stenosis is exceptional.

### Clinical case:

A 54-year-old male patient, with active smoking, hypertension and dyslipidaemia, presents with abrupt severe headache, followed two days later by right visual field defect and fluctuating dysphasia. The initial head CT revealed left peri-rolandic sSHA and, at the fourth day, two new hypodense lesions (left cortical parieto-occipital and left subcortical parietal). Repeated transcranial color coded Doppler (TCCD) evaluations, performed in the first 10 days, found a persistent focal acceleration in distal M1 segment of middle cerebral artery (MCA) with downstream flow attenuation. The digital subtraction cerebral angiography excluded the presence of aneurysms and arteriovenous malformations and showed a severe focal stenosis in distal M1 segment of MCA, with a typical atherosclerotic morphology.

Six months later, the patient remains with right inferior homonymous quadrantanopia. In TCCD evaluation there is still evidence of severe MCA stenosis and there has been complete SAH reabsorption in the CT.

### Conclusion:

We report a patient with spontaneous sSAH and ipsilateral severe MCA atherosclerotic stenosis. We propose a causal relationship between them, and discuss its pathophysiological mechanisms.