When a stroke diagnosis becomes a headache

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Introduction: The aetiology of acute neurological deficits that present in the emergency department is not always straightforward. Ischemic aetiology implies specific management strategies that may carry risks in case of misdiagnosis.

Case Report: A 90-year-old female patient with frequent migraine with prolonged aura, paroxysmal atrial fibrillation (under dabigatran 110mg bid) and hypertension, was brought to the emergency department in the evening with behavioural changes, headache and vomiting with five hours of evolution. On neurological exam, she was agitated, behaving as if she had a global aphasia; a minor right central facial paralysis and right visual field defect were suspected (NIHSS 11). Brain CT scan showed no evidence of acute ischaemic or haemorrhagic lesions; CT-angiography showed no vessel occlusion. Blood analysis was unremarkable apart from a raised aPTT (71s). The ECG showed sinus rhythm. Thrombolysis was contraindicated due to time window and anticoagulation, and thrombectomy was not performed since there was no evidence of thrombus. On the following morning, she had fully recovered and insisted that the symptoms were similar to previous migraine attacks. Brain MRI showed chronic lacunar ischaemic lesions and mild leukoencephalopathy. Electroencephalogram showed no epileptiform activity. Considering the absence of acute ischaemic lesions and major vessel occlusion in an adequately anticoagulated patient, the normal EEG and the fact that the complaints resembled her previous migraine episodes, migraine with aura was considered the most likely diagnosis. Prophylactic therapy was started.

Conclusion: This case highlights the complex decision-making process when dealing with older patients with multiple comorbidities and possible differential diagnosis.