Sudden-onset hemichorea: the importance of differential diagnosis

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From the Porto University Center of Medicine Stroke Update Course, Porto, Portugal. 26–27 June 2018.

Abstract

Case Report: A 73-year-old woman with prior history of systemic lupus erythematosus (SLE), hypertension, dyslipidaemia, smoking and renal cysts was admitted to the emergency department with a two week history of sudden-onset right-sided involuntary movements. Previous medication included hydroxychloroquine, losartan, hydrochlorothiazide, amlodipine and atorvastatin. Neurological examination revealed right-sided choreiform movements involving the tongue, face and right upper and lower extremities. Extensive laboratory tests revealed positive VDRL and TPHA blood tests, and CSF was normal (namely negative VDRL and TPHA). Brain magnetic resonance (MR) found no recent ischaemic or inflammatory lesions, however MR-angiography revealed right-sided choreiform movements involving the tongue, face and right upper and lower extremities. Extensive laboratory tests revealed positive VDRL and TPHA blood tests, and CSF was normal (namely negative VDRL and TPHA). Brain magnetic resonance (MR) found no recent ischaemic or inflammatory lesions, however MR-angiography revealed reduced flow on the left intracranial internal carotid artery (ICA). Computed tomography angiography and Doppler ultrasound confirmed a >70% atherosclerotic left ICA stenosis. Right-sided hemichorea gradually improved after initiation of haloperidol. The patient underwent ICA stenting with angioplasty. At one-month follow-up, slight right-sided choreiform movements of the right upper extremity persisted, with low-dose haloperidol.

Discussion: Sudden-onset hemichorea may have several causes, of which the most frequent are stroke and nonketotic hyperglycaemia, which were excluded in our patient. Likewise, neurosyphilis was excluded in this patient. ICA stenosis has been suggested as a cause of acute contralateral hemichorea, and some authors have reported patients in whom the involuntary movements completely resolved after carotid revascularization. The hemichorea improvement in our patient was probably related to haloperidol, as there was no significant improvement after carotid revascularization. We suggest that the cause of hemichorea in this patient was SLE and discuss the complexity of the differential diagnosis of hemichorea.