Ischaemic stroke related to chronic cannabis use—a case report

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Abstract

Introduction: Several case reports support a causal link between cannabis use and cerebrovascular events, as cannabis may lead to reversible cerebral vasoconstriction syndrome and multifocal intracranial arterial stenosis (MIS).

Case description: A 37-year-old male patient with no known classical vascular risk factors woke up with dizziness and numbness in the right side of the body. He avowed to be a chronic cannabis consumer. At admission, his vital signs were normal. On neurological examination, he exhibited hemiparesis (1/5 motor power) in his right upper extremity and loss of the right nasolabial sulcus, presenting a NIHSS (National Institutes of Health Stroke Scale) of 2. Cranial tomography (CT) revealed an acute ischaemic infarct over the left parietal lobe and vascular sequelae in the territory of the deep penetrating branches of the left middle cerebral artery (MCA). CT angiography of the extracranial neck vasculature and all laboratory examinations were normal. Due to the presence of multiple strokes, an embolic source was searched (24h Holter, transthoracic and transoesophageal echocardiograms). Magnetic resonance imaging detected a chronic infarct in the left temporal lobe and multiple lacunar strokes (some with increase in restriction diffusion-weighted imaging) in the left MCA territory, suggesting the existence of an underlying vasculopathy.

Discussion: Chronic cannabis use is associated with increased cerebrovascular resistance and has been temporally associated with paroxysmal atrial fibrillation. Although this possibility could not be ruled out completely in this patient, the absence of cardiac symptoms, the normality of the echocardiographic studies, and the absence of systemic embolic events made this possibility unlikely, favouring the likelihood of a MIS.