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When silence is not golden! Another cause of isolated aphasia - the not-so-good stuff!

It is because of the distribution of the middle cerebral artery (MCA), that isolated aphasia as a presentation of stroke is uncommon. Causes of such a presentation is assumed to be that of an embolic phenomenon. This case reminds us of the risk of stroke in illicit drug use while highlighting another cause of stroke with isolated aphasia

We present a 50 year old male with no prior medical history, who presented because his wife noted he was unable to speak. According to wife, patient was conversing normally until 8 hours prior to presentation where the mother of the patient noted that he was speaking in incomprehensible sentences. He subsequently was acting confused and then unable to talk at all. Focal weakness, seizures, facial drooling or unsteady gait was denied. He does not take any medications. He smoked cigars and marijuana smoking in which wife was unable to quantify.

When seen, his blood pressure was 126/79, pulse 54 beats/minute, other vitals were normal. Cardiovascular, respiratory and abdominal exam were normal. Carotid bruits were not appreciated. Aphasia and agraphia was noted. Motor exam showed normal tone, power and reflexes of all extremities, with equivocal Babinski. Gait was normal. Sensory exam was normal. Cranial nerves were intact.

EKG showed sinus bradycardia (rate 54) with no ST changes. CBC and CMP were unremarkable. Urine toxicology was positive for cannabinoids and cocaine. A brain CT showed a large area of loss of gray-white differentiation to the left frontal lobe including the insular cortex with associated sulcal effacement. The patient was assessed as ischemic stroke. As he was out of the window for emergent intervention, patient was managed conservatively with aspirin and statin and admitted. An MRA confirmed subacute ischemic injury involving the left MCA distribution with focal narrowing of an M2 branch within the sylvian fissure. Carotid artery Doppler showed no significant stenosis. Echocardiogram was normal. Lipid profile, homocysteine and anti-cardiolipin antibodies were normal. Thrombophilia workup was negative. Full neurological assessment by neurologist and by speech therapy revealed expressive aphasia without dysarthria or any other focal neurological deficits – the cause of such assumed to be secondary to cocaine abuse. The patient was discharged for outpatient speech and occupational therapy.

Isolated aphasia as a presentation in CVA is an uncommon occurrence – because of the distribution of the MCA, aphasia is usually accompanied by focal weakness, sensory deficit or visual disturbances. When it does present as an isolated event, it is usually secondary an embolic event. As with this patient, illicit drugs are also associated with ischemic stroke. As vasospasm is an accepted proposed mechanism for ischemia, it should be highlighted that illicit drugs can also be a cause of this uncommon presentation of stroke.

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