

Migraine is a marker for systemic disease

Dear Editor,

We read with interest the article titled "Retinal arterial occlusions in the young: Systemic^[1] associations in Indian population by Ratra *et al.* Authors have mentioned severe headache, floaters and transient blurring of vision as the presenting symptoms in a subset of patients.

Visual aura (migraine) are fully reversible symptoms including positive features (e.g., flickering of lights, spots or lines) and negative features (i.e., loss of vision). A migraine diathesis may be a marker for an underlying defect such as hypertension, hypercoagulability, lupus erythematosus or mitral valve prolapse and therefore might occasionally co-occur with^[2] vascular occlusion or retinal vasospasm. Experts disagree whether retinal migraine is a rare or common cause of monocular visual loss and whether the mechanism is spreading depression or vasospasm. Complicated migraine refers to a permanent neurologic deficit whether it is visual, motor or sensory in origin. In some instances the stroke does not respect the usual middle or posterior cerebral artery territories suggesting that a strict vascular mechanism is insufficient to^[3] explain all migraine-related stroke phenomena.

Cocaine abuse cause hypertensive surges, stroke, arterial and venous thrombosis. Neuroimaging studies in cocaine abusers demonstrated abnormal perfusion involving the infraparietal,^[4] temporal and anterofrontal cortex and basal ganglia. Dopamine-rich brain regions appear to be relatively specific targets for cocaine-induced cerebral ischemia. Dopamine is one of the^[5] numerous neurotransmitters present in outer and inner layers of the retina. Cocaine abuse,^[3] exercise and lupus cause non-migrainous retinal vasospasm and transient monocular visual loss. Authors have documented hypertension, cerebrovascular accident and basal ganglia infarction in a 37-year-old patient.

In our practice we routinely inform the possibility of underlying systemic disease and importance of physician consultation in all patients with migraine. Perimetry may be useful to identify coexisting cerebral ischemia in patients with retinal vascular occlusion and normal neuroimaging study. We appreciate the authors' effort and research work.

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