Atypical Presentation of CVT As Orthostatic Headache

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Sir,

The presentation and severity of cerebral venous thrombosis (CVT) are varied.¹ Headache is the most common symptom of CVT, and raised intracranial pressure is the most plausible explanation that can be given.² But, due to its varied presentation, the underlying pathophysiology of headache in CVT is not clearly understood. Herein, we present a patient who had presented with orthostatic headache as the main clinical presentation of CVT.

A 32-year-old lady presented with a 1-week history of bifrontal headache, which was severe and throbbing. Classically, the headache was orthostatic; that is, it aggravated in the upright position and relieved when the patient was lying down. Neurological examination and laboratory findings were normal. Computerized tomography of the brain did not show any abnormalities. A provisional diagnosis of spontaneous intracranial hypotension was suspected. Magnetic resonance (MR) imaging of the brain showed no evidence to suggest intracranial hypotension (SIH). MRI brain coronal images showed hyperintense clot in the superior sagittal sinus (Fig. 1). MR venography showed the absence of a flow void in the superior sagittal sinus (Fig. 2). A diagnosis of CVT was made. The headache improved after intravenous anticoagulation treatment, followed by oral anticoagulants.

We would like to put forward the concept that orthostatic headache can develop in conditions where there is reduced intracranial cerebrospinal fluid (CSF) volume in intracranial hypotensive as well as intracranial hypertensive states.³ Orthostatic headache in CVT can be explained by the downward displacement of the brain due to low CSF volume, causing traction on pain-sensitive intracranial vessels.⁴

Although CVT secondary to SIH has been reported before, orthostatic headache as the presenting manifestation of CVT in the absence of SIH has not been described. CVT should also be emphasized in the differential diagnosis when a patient presents with an orthostatic headache. One should keep in mind the possibility of CVT in any patient who presents with a new-onset headache, which can be of any type or any severity, and in any site, particularly when there is worsening pain despite being on analgesics. The earlier the diagnosis and hence the earlier the treatment, the better the outcome will be.

Fig. 1: Coronal T2/flair shows hyperintense clot (white arrow) in the SSS suggestive of acute thrombosis

Fig. 2: Magnetic resonance (MR) venography shows loss of flow void in anterior one-third of superior sagittal sinus (SSS)

REFERENCES