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Case Report

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A Case of Unilateral Thalamic Venous Infarct with Unilateral Choroid Plexus Haemorrhage in Deep Venous System Thrombosis

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Abstract

Cerebral venous thrombosis (CVT) is a rare variety of cerebrovascular disease that affect patient of any age. CVT represents almost 0.5% - 3% [1] of all the types of stroke, affecting predominantly younger people [2]. The varied clinical presentation, multiple causes and risk factor make the clinical diagnosis difficult. However radiological confirmation of the diagnosis is now easier.

Here we are reporting a case of deep cerebral vein thrombosis leading to unilateral thalamic venous infarct, our case is unusual as there are only few case reports of unilateral thalamic venous infarct, however choroid plexus haemorrhage as seen in our case has not been described earlier.

Keywords

Unilateral thalamic venous infarct, Choroid plexus haemorrhage, Deep cerebral vein thrombosis

Case Report

A 17-year-old female patient presented with four days history of acute onset, moderate to severe holocranial, throbbing type headache associated with nausea and multiple episodes of vomiting. Patient became drowsy, her speech became slurred and developed left hemiparesis on second day.

There was no history of fever, seizure, or intake of oral contraceptive pills. She was nullipara and had history of menorrhagia since onset of menarche at age of 14 for which she never consulted any gynaecologist. At the age of 10, she sustained head injury while playing in school, but there was no loss of consciousness or seizure at that time or later.

General physical examination revealed pulse rate 80/min, Blood Pressure 114/78 mm of Hg.

Patient was anaemic, drowsy and speech was slurred. Fundus examination revealed bilateral papilledema, and skew deviation of eye was present. Left upper motor neuron facial weakness with left sensory-motor hemiparesis was present.

Routine investigation revealed, Hb 7.7 gm/dl, MCV 85.5 femtoliter, Peripheral blood film showed normocytic normochromic anaemia. Thyroid profile, renal function test, liver function test, coagulation profile (protein C, protein S, antithrombin III and Factor V Leiden mutation), were normal, and negative for HIV and VDRL. Vitamin B12 was low 163 pg/ml (211-911 pg/ml). Echocardiography done and was normal.

MRI Brain with DWI revealed (Figure 1A-1C) heterogeneous signal abnormalities in right thalamus, posterior limb of internal capsule and dorsal

putamen showing patchy area of diffusion restriction and small areas of signal void (haemorrhages) within, suggestive of haemorrhagic infarct. The choroid plexus in right trigone and right choroid fissure were bulky and appeared Hypointense on T2W images suggestive of choroid plexus haemorrhage.

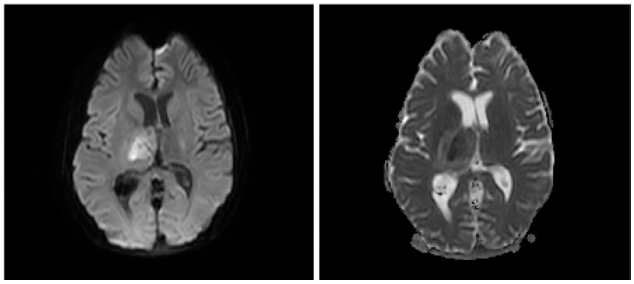

Figure 1A: MRI DWI- showing patchy area of diffusion restriction in right thalamus, and small areas of signal void (hemorrhages) within suggestive of haemorrhagic infarct.

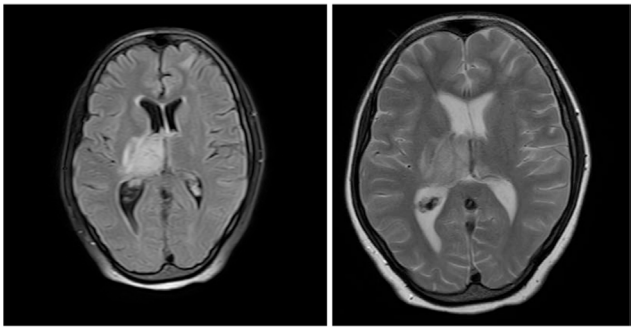

Figure 1B: Fluid attenuated inversion recovery and T2-weighted magnetic resonance imaging brain axial view showing the choroid plexus in right trigone and right choroid fissure are bulky and appear Hypointense on T2W images suggestive of choroid plexus haemorrhage.

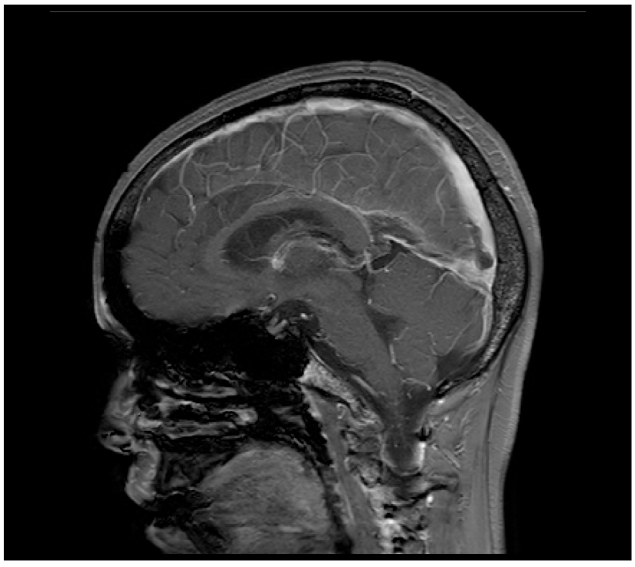

Figure 1C: T1-contrast magnetic resonance imaging brain axial view showing filling defect in straight sinus, vein of galen, right internal cerebral veins suggestive of thrombosis of deep venous system.

On CT Venography of cerebral vein, (Figure 2) there was absence of enhancement in entire length of straight sinus, vein of Galen and right internal cerebral vein, suggestive of deep cerebral vein thrombosis.

Figure 2: Contrast CT Venography of cerebral vein revealed there is absent enhancement in entire length of straight sinus, vein of Galen and right internal cerebral vein, suggestive of straight sinus, vein of Galen and right internal cerebral vein thrombosis.

She was treated with IV fluid, antiemetic, analgesic, and low molecular weight heparin, and on third day Tablet Nicoumalone 2 mg PO, once daily was started, and anaemia was corrected. Patient start improving on day 2.

Discussion

Deep cerebral venous thrombosis is although uncommon but well recognized entity described in the literature. Thalamic involvement usually symmetrical and bilateral and possibly extends into basal ganglia and adjacent white matter bilaterally [3-5].

Cerebral vein thrombosis (CVT) is a disease with potentially serious consequences and usually affect young to middle-aged people, early diagnosis and treatment is utmost important. Multiple factors have been associated with CVT, but only some of them are reversible [6, 7]. Anaemia is one of them and an important risk factor for CVT. Our patient had history of long standing menorrhagia leading to anaemia, although exact aetiology for CVT in our patient could not be established, her anemia may have been a strong risk factor for the possible cause of CVT in our patient.

Early diagnosis is utmost important, because treatment, based on anticoagulation initially, usually allow a good outcome, on the whole far better than that of arterial stroke and early recognition of treatable cause can reverse the disease progress with good outcome.

To the best of our knowledge this is the first case report of unilateral thalamic venous infarct with choroid plexus haemorrhage.

Conflict of Interest

The authors declared no conflict of interest

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