Deep cerebral venous thrombosis
A challenging diagnosis

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Deep cerebral venous thrombosis (DCVT) of internal cerebral vein, without involvement of the superior sagittal sinus is a rare disorder and may be associated with poor prognosis¹.

CASE
We report the case of a 47 years-old female patient with a last medical history for peripheral venous thrombosis. She denied smoking or alcohol habits but took oral contraceptives. No family history of similar events. She sought medical attention at the emergency department (ED) for headache, vomiting and confusional syndrome.

She remained bedridden at home with persistent headache, vomiting and postural imbalance. The headache was holocranial, pressure type, at first gradual and then with progressive deterioration and no relieving or aggravating factors. Three weeks later noted a confusional syndrome. At the ED on physical examination found her awake, disoriented, with apathy following simple orders, but unable to execute complex orders; decreased fluency of speech, but without naming errors. A right hemiparesis was apparent. No other neurological signs were found. She was hemodynamically stable and afebrile.

Brain CT scans (Fig A) revealed symmetrical thalamic and midbrain hypodensities associated with hypodensity of Galen vein and straight sinus. MRI (Fig B) showed DCVT of Galen vein, rectus sinus, internal cerebral veins and right lateral sinus.

Anticoagulation with intravenous heparin was started.

Investigation was negative for thrombophilia, autoimmune diseases or infections.

She was discharged 14 days later, after presenting a steady improvement, only with a slight decrease of speech fluency. Warfarin and discontinuation of oral contraceptives were advised.

DISCUSSION
The pathogenesis of venous infarct is related to vasogenic edema, parenchymal injury and dysfunction caused by disruption of the blood-brain barrier and rupture of veins².

Clinical presentation is variable and may be acute, sub-acute or chronic. Headaches are the most frequent symptom. Focal neurological deficits, seizures and encephalopathy with loss of consciousness or coma are also part of the clinical spectrum².

Etiology is usually multifactorial and risk factors include pro-thrombotic conditions, anti-conception pill use, pregnancy, malignancies, infections among others².

DCVT is a rare disorder whose clinical features are nonspecific. DCVT causes symmetrical strokes, usually, affecting thalamus, basal ganglia and the surrounding white matter. Diagnosis is confirmed by abnormal signal of the venous sinus on MRI. Tomography is normal in 30% of the cases¹-³.

Standard treatment is heparin. Endovascular thrombolysis can be performed when there is clinical deterioration.

Prognosis is good, although worst in the DCVT and worse, if associated with infection of the central nervous system, malignant neoplasm, cerebral hemorrhage or Glasgow <9 on admission. The risk of recurrence is low. Anticoagulation should be maintained with warfarin for 3 to 6 months if there is a transient risk factor⁵.

In this case the initially nonspecific symptoms were under-interpreted by the patient and her family. Further deterioration of consciousness and a typical neuroimaging of DVCT facilitated the diagnosis. Oral anti-conception was the risk factor. Early diagnosis and prompt treatment are essential to avoid devastating situations⁶,...
REFERENCES


TROMBOSE VENOSA PROFUNDA CEREBRAL: UM DIAGNÓSTICO DESAFIANTE

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