Case	(219) Cerebral venous thrombosis.
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CASE PRESENTATION

A 44 year-old woman appeared in emergency department suffering tonic-clonic convulsive crisis. She presented headache and hypertensive crisis during last 3 days.

She was taking contraceptive pills.An unenhanced head computed tomography (CT) showed subarachnoid hemorrhage (SHA) in right cerebral convexity and hyperdensity on right transverse sinus with the form of a venous structure.

The CT also proved a frontal left infarct with an area of hemorrhage and edema. The enhanced contrast CT demonstrated an intraluminal filling defect in right transverse and longitudinal sinuses proving vessel occlusion.

DISCUSSION

Cerebral venous thrombosis is a neurological disorder with variable clinical manifestations and etiologies, that makes it difficult to diagnose and demands high suspicius index.It presents with a wide spectrum of symptoms: neurological focal signs, headache (90%), seizures (40%), changes in mental state, vomiting...Unenhanced CT represents first radiological exploration for the evaluation of patients with neurological symptoms.

It is normal in 70% of the patients affected by cerebral venous thrombosis.To diagnose it, we can help of direct and indirect radiological signs:

- Direct signs: We visualized the thrombus in the vessel.

  o The “string sign” (20% of patients) is showed in the unenhanded CT as an hyperdense image following the vessel.

  o The “dense triangle sign” represents opacification from fresh coagulated blood.

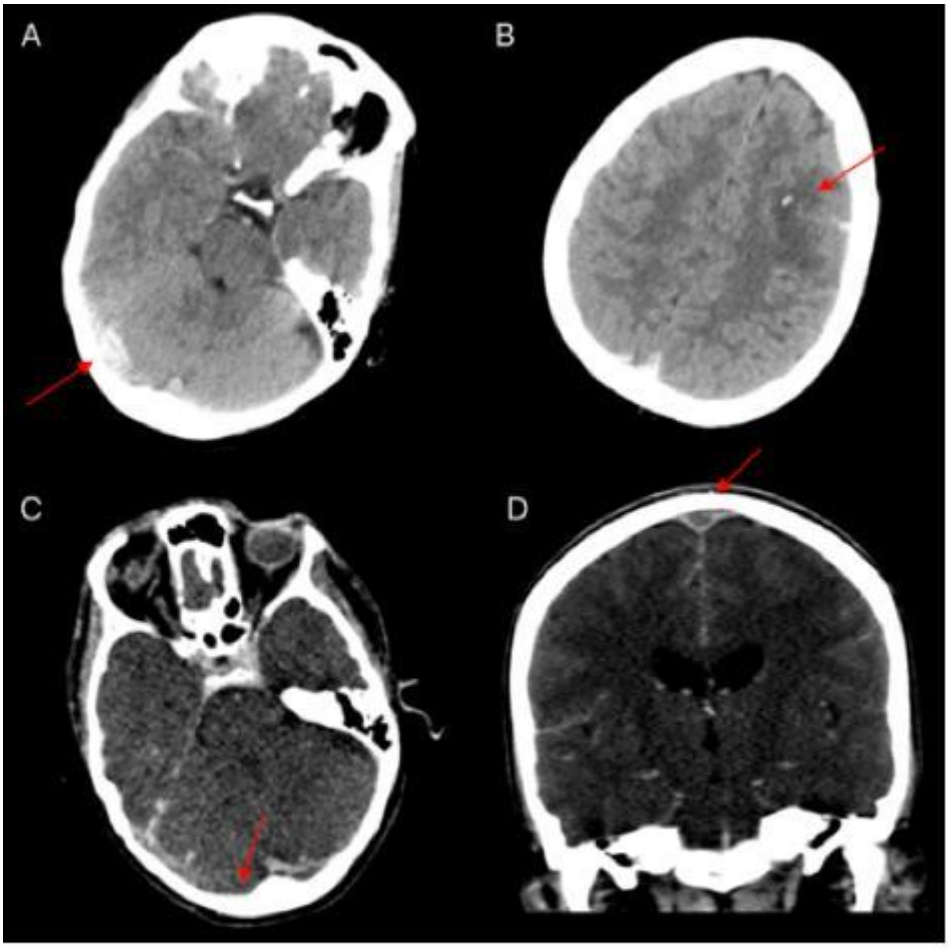
  o The “empty delta sign” is showed in the contrast CT and it is produced due to an intraluminal filling defect.

- Indirect signs: It shows brain parenchyma damage from ischemia or vascular changes (subcortical infarct) and haemorrhage complications.

There are potencial pitfalls: on unenhanced CT, haemmoconcentration or parcial volumen artefacts, and on contrast-enhanced CT, arachnoid granulations and venous anatomic variants (aplasia or hypoplasia).The treatment are anticoagulants.

CONCLUSION

Cerebral venous thrombosis is an uncommon but serious neurologic disorder that is potentially reversible with prompt radiological diagnosis, based on CT, and rapid implementation of anticoagulant treatment. There are many causal factors and clinical manifestations so the diagnosis need a high suspicious index.



A. Unenhanced CT: High attenuation in right transverse sinus.
B. Unenhanced CT: Area of hemorrhage and edema in left convexity
C. Contrast-enhanced CT: Filling defect in right transverse sinus
D. Contrast-enhanced CT: Filling defect in longitudinal sinus (empty delta sign)

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