Teaching NeuroImages: A giant developmental venous anomaly in the absence of a superficial venous drainage system

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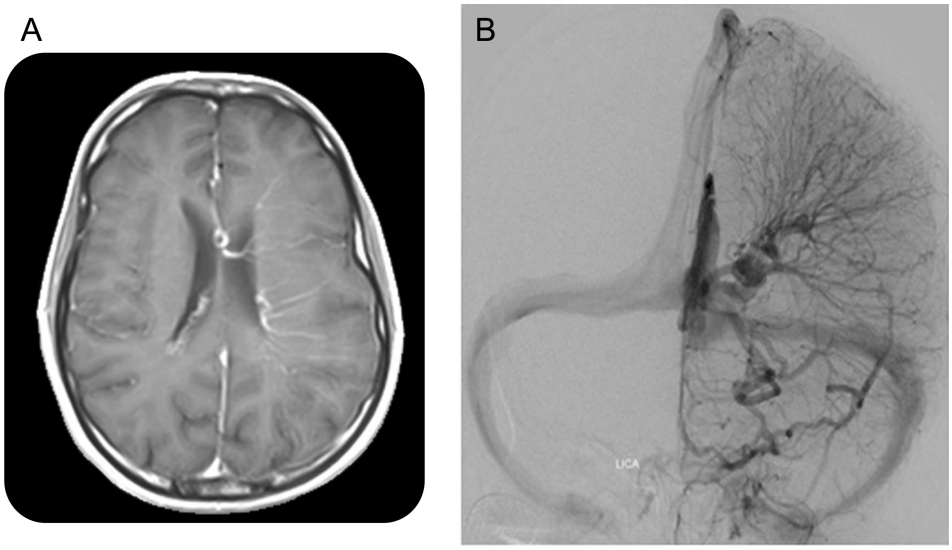
Figure Holohemispheric developmental venous anomaly



(A) T1-weighted MRI with IV gadolinium. The centrum semiovale shows multiple contrast-enhanced linear structures from the cortex to the left lateral ventricle. (B) Digital subtraction angiography. In the absence of a superficial venous drainage system, a holohemispheric developmental venous anomaly is visualized.

A 46-year-old woman presented with new left hemispheric seizures. Enhanced T1 MRI showed a vascular abnormality (figure, A). All other sequences were normal. Cerebral angiography revealed a developmental venous anomaly, with the typical caput medusae appearance (figure, B).

Developmental venous anomalies are generally considered benign variants of the venous system and are thus regarded as symptom-free, although they can be associated with cavernomas which may cause seizures.[1,2]

In this case, without signs of a cavernoma, the absence of a superficial venous system may be responsible for the seizures, since a fragile equilibrium of inflow and outflow may lead to venous congestion.

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