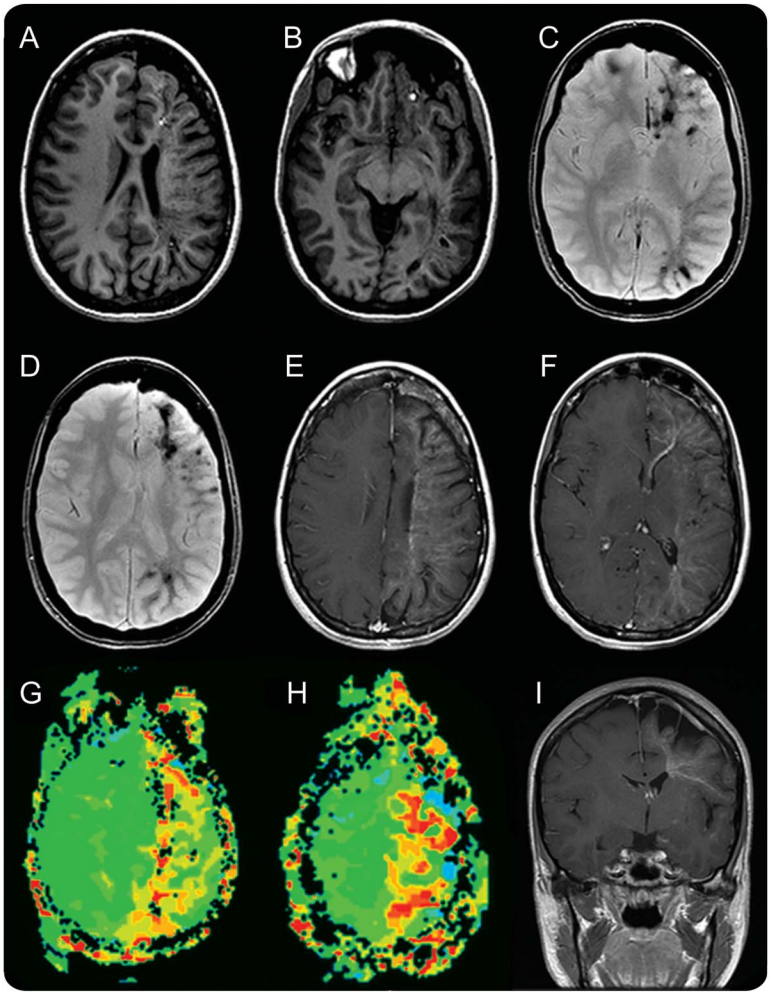
Holohemispheric developmental venous anomaly

Figure MRI of holohemispheric developmental venous anomaly



(A, B) Precontrast axial T1-weighted images. (C, D) Axial T2* gradient echo. (E, F) Postcontrast axial T1 spin echo. (G, H) Axial time to minimum perfusion map. (I) Postcontrast axial gradient echo T1 coronal.

Developmental venous anomalies (DVA) are normally diminutive and incidental.[1,2] In this 33-year-old patient with epilepsy, the DVA is holohemispheric. Her epilepsy probably originates from the left side based on semiology; the EEG displayed left-sided slowing. Axial T1-weighted sequences show skull atrophy, ventricular widening, and satellite cavernous malformations with accumulation of subacute blood products including hemosiderin (figure, A and B). T2 gradient echo illustrates pockets of chronic hemorrhage (figure, C and D). Engorged holohemispheric anomalous venous structures channel into ventricular periependymal veins, illustrated by mulitplanar T1 echo spin postcontrast sequences (figure, E and F). Time to minimum perfusion reflects elevated transit times, suggesting venous hypertension and capillary backpressures.

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