

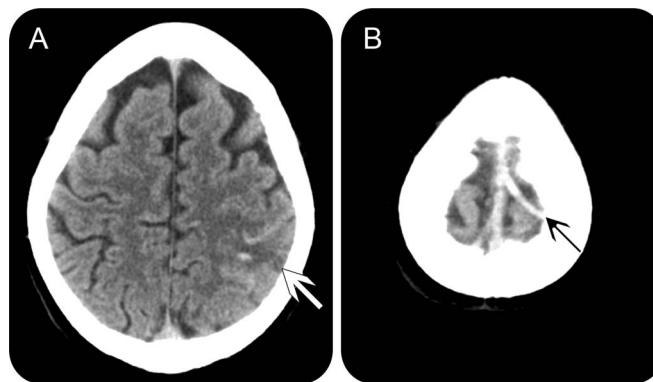
Teaching NeuroImages:

Magnetic resonance susceptibility effect for acute isolated cortical vein thrombosis

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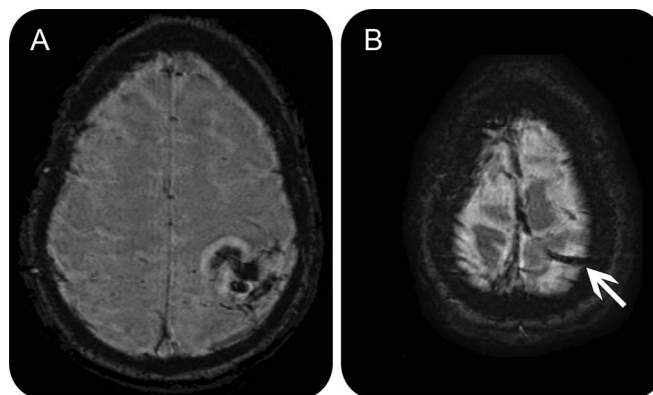
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Figure 1 Baseline noncontrast CT scan



Axial CT scan shows subtle hemorrhagic infarction in left parietal region (white arrow; A) with associated hyperdense cortical vein (black arrow; B).

Figure 2 MRI susceptibility-weighted imaging 15 hours after onset



Axial MRI with susceptibility-weighted imaging shows magnetic susceptibility effect in left parietal area (A) and ipsilateral cortical vein (arrow; B). MRI time-of-flight venography was negative (not shown).

A 38-year-old woman using hormonal contraception presented with right-sided abdominal and arm clonic seizures, right hemiparesis, hypesthesia, and nausea. She denied headache. D-dimers were 350 ng/mL (laboratory reference ≤ 500 ng/mL). CT showed a small left parietal hemorrhagic infarct with adjacent hyperdense cortical vein (figure 1). MRI 15 hours

after onset showed magnetic susceptibility effect on susceptibility-weighted imaging (SWI, figure 2). Isolated cortical vein thrombosis is present in 5% of patients with cerebral venous thrombosis (CVT).¹ Negative D-dimer and absence of headache does not exclude CVT¹ and SWI is useful for confirmation of the diagnosis.²

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AUTHOR CONTRIBUTIONS

Slaven Pikija: drafting/revising the manuscript, study concept or design, analysis or interpretation of data, accepts responsibility for conduct of research and final approval, contribution of vital reagents/tools/patients, acquisition of data, study supervision. Peter Unterkreuter: drafting/revising the manuscript, accepts responsibility for conduct of research and final approval, contribution of vital reagents/tools/patients, acquisition of data. Michael Knoflach: drafting/revising the manuscript, study concept or design, analysis or interpretation of data, accepts responsibility for conduct of research and final approval, study supervision.

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DISCLOSURE

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