Susceptibility-weighted imaging in familial cerebral cavernous malformations

A 59-year-old man with a family history of cerebral cavernous malformations (CCM) presented with focal seizures. T2*-weighted gradient echo (GRE) images showed multiple lesions consistent with cavernous malformations (figure 1). Susceptibility-weighted images (SWI) detected nearly triple the number of lesions than were seen with the GRE sequence (figure 2).

SWI is a relatively new MRI technique that is optimized for detection of magnetic susceptibility effects.1 SWI is more sensitive than T2*-weighted GRE images in detecting CCMs.2,3 As with GRE techniques, SWI demonstrates “blooming” of hemosiderin containing lesions.3 SWI may prove to be useful in identifying the true extent of CCMs or in confirming the presence of suspected small CCMs.

Alex D. Cooper, MD, Norbert G. Campeau, MD, and Irene Meissner, MD, Rochester, MN

Disclosure: The authors report no disclosures.

Address correspondence and reprint requests to Dr. Alex D. Cooper, Department of Neurology, Mayo Clinic, 200 1st Street SW, Rochester, MN 55905; cooper.alex@mayo.edu
