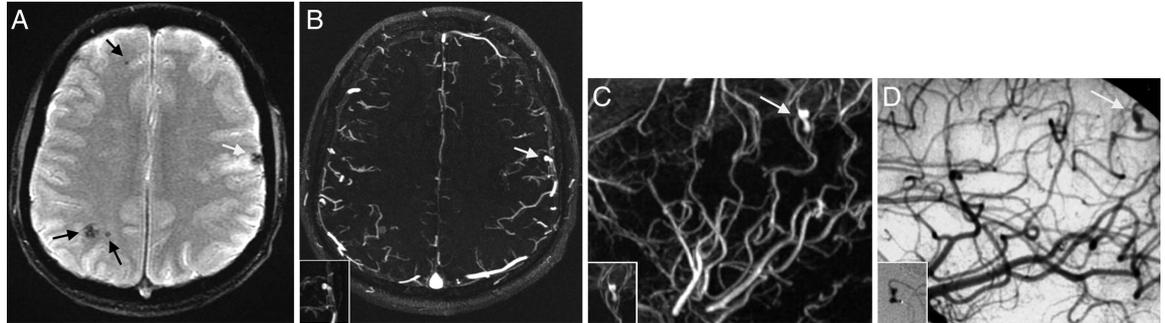


Silent T2* cerebral microbleeds

A potential new imaging clue in infective endocarditis

T2* brain MRI (A) showed corticomeningeal small black dots related to microbleeds. At the corresponding site of a left frontal microbleed (white arrow), axial and sagittal MRA views (B and C) suggested the presence of a fusiform mycotic aneurysm of which the arterial origin was confirmed by cerebral angiography (D).

Figure 1 T2* brain MRI



In an IV drug–addicted, neurologically asymptomatic, 40-year-old man with definite infective endocarditis (IE), T2* MRI revealed numerous cerebral microhemorrhages known as microbleeds. The anatomic location of one microbleed matched with that of a nonruptured mycotic aneurysm (figure 1, A to D). Moreover, T2* follow-up imaging before cardiac surgery showed that the number of microbleeds had asymptotically increased twofold, despite antibiotherapy (figure 2, A and B). Such rapid variation may suggest an active microvascular underlying process causally linked to IE. Furthermore, the microbleeds appeared qualitatively and anatomically different from those reported in other causes of microhemorrhages, e.g., amyloid angiopathy, chronic hypertension, or multiple cavernoma syndromes. T2* MRI appears as a promising noninvasive method to target patients at risk for developing intracranial bleeding or mycotic aneurysm in IE, as has been suggested previously.¹

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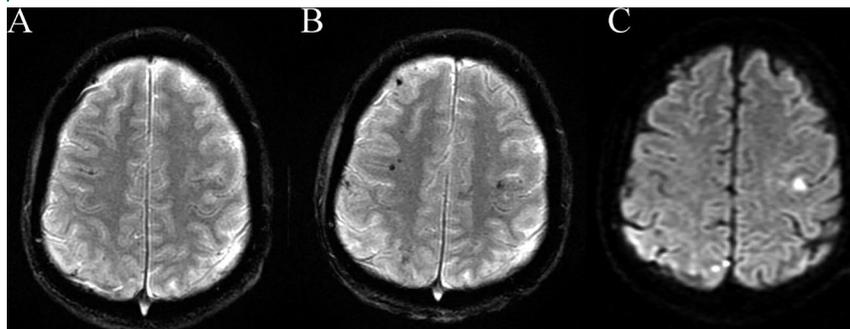
Disclosure: The authors report no conflicts of interest.

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Figure 2 Initial and follow-up T2* MRI



Initial (A) and follow-up (B) T2* MRI showed an increase of the microbleeds at the gray-white matter junction differentially located from acute ischemic lesions depicted as hyperintensities on diffusion MRI (C).

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