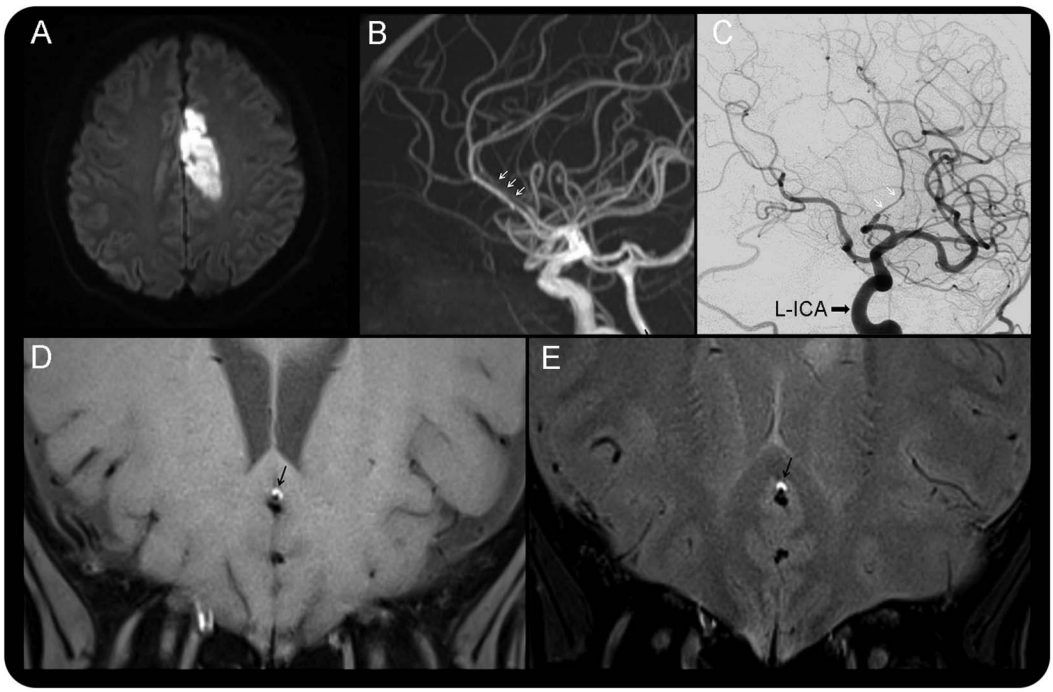
Anterior cerebral artery dissection diagnosed using high-resolution MRI

Figure Angiographic and high-resolution MRI of anterior cerebral artery dissection



Diffusion-weighted imaging (A) shows left anterior cerebral artery infarcts. Magnetic resonance (B) and percutaneous (C) angiographies show a long stenosis (white arrows) of left A2 segment. High-resolution MRI (fat suppression) of A2 segment (D, E) reveals the high signals (black arrow) of intramural hematoma indicating the diagnosis of dissection.

A 51-year-old man was admitted due to weakness (3/5) of the right lower extremity. Brain MRI revealed acute infarcts in the left anterior cerebral artery (ACA) territory (figure, A). Angiographic images demonstrated a stenotic lesion in the left A2 segment (figure, B and C), which high-resolution MRI revealed as a dissection (figure, D and E). Although extensive assessments were conducted, underlying arteriopathy was not found. Arterial dissection is a frequent cause of ACA infarcts (43%),[1] and its diagnosis depends on angiographic examinations. Our case showed that high-resolution MRI might be a useful tool for diagnosis of ACA dissections that present without typical angiographic features.

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1. Sato S, Toyoda K, Matsuoka H, et al. Isolated anterior cerebral artery territory infarction: dissection as an etiological mechanism. Cerebrovasc Dis 2010;29:170–177.

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