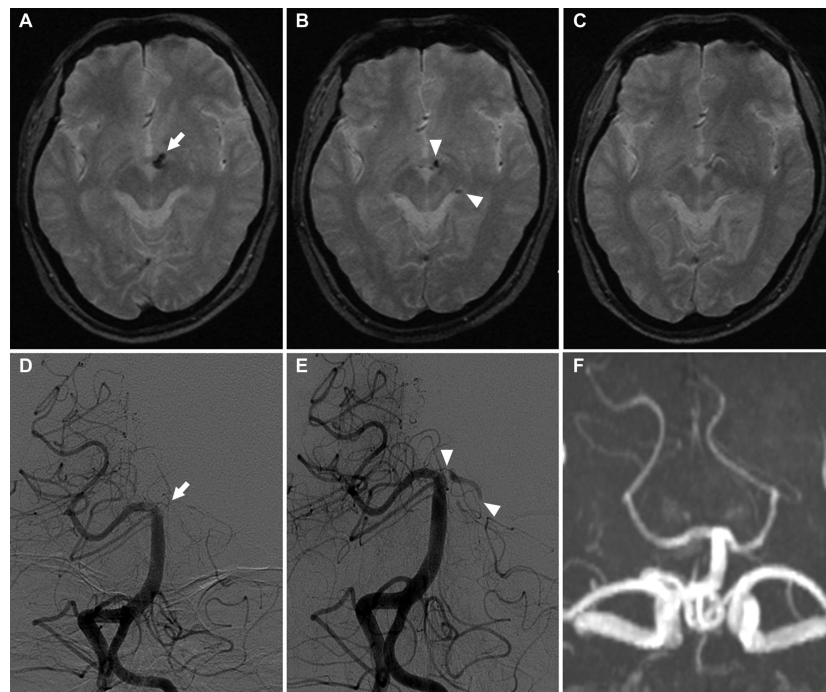


# Teaching NeuroImages: Posterior cerebral artery susceptibility vessel sign on T2\*-weighted gradient echo imaging

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Figure MRI



T2\*-weighted magnetic resonance gradient echo imaging shows low signal intensity in the proximal segment of the left posterior cerebral artery (PCA) (arrow, A), its breakdown and reduction in size (arrowheads, B), and resolution (C). Corresponding conventional and magnetic resonance angiography demonstrate occlusion (D) and partial (E) and full recanalization (F) of the left PCA after thrombolysis.

A 60-year-old man with atrial fibrillation was admitted due to left posterior cerebral artery (PCA) infarction. Serial T2\*-weighted magnetic resonance gradient echo imaging (GRE) before and after thrombolysis demonstrated consecutive changes of the PCA susceptibility vessel sign (SVS) at 3, 7, and 210 hours poststroke with corresponding vessel images at 4, 6, and 210 hours (figure). The SVS suggests intracerebral artery occlusion by red or mixed thrombi and may occur in the PCA in up to 43% of cases, according to small series.<sup>1,2</sup> The deoxyhemoglobin, methemoglobin, and hemosiderin in the thrombus cause the low signal intensity on GRE.<sup>1,2</sup> The

presence of a patent PCA on follow-up imaging suggests embolism caused the PCA SVS in this case.

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