Figure. (A) Gradient echo (GRE), (B) T2-weighted imaging (diffusion weighted MRI $b = 0$) and (C) FLAIR showed right hemisphere hyperintensity with a slight rim of hypointensity on GRE and T2, consistent with an accumulation of fresh arterial blood consisting mainly of intact red blood cells containing oxy-Hb. Oxy-Hb is diamagnetic showing hypo or isointensity on T1-weighted imaging and hyperintensity on T2-weighted imaging (high water content).

Hyperacute post-thrombolysis hematoma by MRI

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An 89-year-old woman presented acutely following the onset of aphasia and right hemiparesis (NIH Stroke Scale = 10), without clinical or CT contraindications to thrombolysis. She received IV recombinant tissue plasminogen activator (0.9 mg/kg infused over 1 hour after 10% bolus) beginning 90 minutes after symptom onset.

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The patient was imaged with a 3 T MRI 2.5 hours after stroke onset. Ten minutes after the start of the MRI, she suddenly became agitated and developed contralateral left hemiplegia. Fluid attenuated inversion recovery (FLAIR), T2-weighted and gradient echo sequences revealed a hyperacute right hemisphere hematoma (figure).¹ Microbleeds, a potential risk factor for contralateral symptomatic hemorrhage following thrombolysis, were not identified on gradient echo sequences.²

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