



*Figure. CT perfusion study. Cerebral blood flow map showing severely decreased flow over the right hemisphere; around 20 mL/100 g/min (A) at worst (compared with 35 mL/100 g/min over the left hemisphere). (B) Mean transit time (MTT) map with a prolonged MTT of 6 seconds.*

## Syncope and cerebral hypoperfusion

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An 87-year-old woman who had had a right middle cerebral

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artery stroke 2 years previously was admitted following multiple syncopal episodes. The episodes occurred only on standing and caused a mild left hemiparesis, which resolved gradually on lying down. Blood pressure showed a 30-mm Hg postural drop. Cardiac and EEG monitoring was normal. Carotid CT angiography and Doppler ultrasound showed an occluded right common carotid artery with retrograde external carotid artery flow supplying the right internal carotid artery. Brain CT and MRI showed evidence of moderate leukoariosis, but no evidence of prior infarction. The patient was asymptomatic during a CT perfusion study (figure), which showed critical hypoperfusion of her right hemisphere estimated at 20 mL/100 g/min (figure, A). She was successfully treated with fludrocortisone and compression stockings.

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