



Figure. (A) Axial diffusion-weighted MRI demonstrates an acute to subacute lacunar infarct in the left midbrain. (B) Axial FLAIR (fluid-attenuated inversion recovery) MRI of the brain demonstrates hyperintensity predominantly involving the left red nucleus and the left substantia nigra. The infarct extended rostrally to just below the subthalamic nucleus and laterally to the margin of the cerebral peduncle.

Midbrain infarct with parkinsonism

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A 65-year-old dextral woman with hypertension presented with a 5-day history of difficulty writing. On examination, she had impaired adduction of her left eye and micrographia. MRI demonstrated an acute to subacute lacunar infarct involving predominantly the left red nucleus and the substantia nigra pars

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compacta (figure). Three weeks later, her extraocular movements were normal; however, she had bradykinesia and micrographia in her right arm (without tremor). She was treated with carbidopa/levodopa, and her bradykinesia and micrographia improved. Treatment with carbidopa/levodopa was discontinued after 2 months without worsening of her clinical condition.

Parkinsonism due to a focal ischemic lesion is very rare, and only about one-third of patients with all forms of vascular parkinsonism respond to levodopa treatment.^{1,2} The majority of patients with parkinsonism due to a focal ischemic lesion do not exhibit tremor, unlike patients with idiopathic PD.^{1,2}

1. Winikates J, Jankovic J. Clinical correlates of vascular parkinsonism. *Arch Neurol* 1999;56:98–102.
2. Demirkiran M, Bozdemir H, Sarica Y. Vascular parkinsonism: a distinct, heterogeneous clinical entity. *Acta Neurol Scand* 2001;104:63–67.