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Figure. (A) Axial fluid-attenuated inversion recovery imaging. (B) Collapse imaging of brain MR angiography (MRA) showing stenosis of the left P2 segment (arrow). (C) Collapse imaging of previous brain MRA.

Cerebral peduncular infarction

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A 65-year-old man with hypertension developed mild degree of dysarthria and weakness in the right hand. Neurologic examination showed central paresis of the right face, tongue, and upper limb without ataxia. Fluid-attenuated inversion recovery imaging (1.5 Tesla, Hitachi Medical Stratis II) showed marked hyperintensity signal in the left cerebral peduncle (figure, A). MR angiography (MRA), using a three-dimensional time of flight sequence, disclosed irregularities of the basilar artery and stenosis of the left ambient (P2) segment (see the figure, B), in comparison with previous MRA at age 61 years (see the figure, C).

Lacunar infarction of the cerebral peduncle occurs infrequently and may cause dysarthria—one-hand weakness.¹ The circulation of cerebral peduncle is supplied by the perforating branches from the posterior communicating arteries and the peduncular perforating arteries and circumflex branches from the posterior cerebral arteries. Those perforating and circumferential branches originate from the precommunical (P1) or P2 segment of the posterior cerebral arteries.² Our images indicate that the stenosis of ipsilateral P2 segment could contribute to cerebral peduncular infarction in our patient.

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