Pontocerebellar Atrophy Resembling Spinocerebellar Ataxia Following a Brain Infarction

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A 62-year-old man complained of gait disturbance associated with mild ataxia. Brain T2-weighted MR imaging revealed pontocerebellar atrophy with middle cerebellar peduncle (MCP) atrophy, thus suggesting the presence of a degenerative disorder (Picture A). However, the patient had a history of ischemic stroke at 56 years of age. His initial symptom of bilateral deafness improved thereafter, as has been described elsewhere (1). Diffusion-weighted imaging obtained on admission revealed bilateral MCP and cerebellar acute infarctions (Picture B); however, no pontocerebellar atrophy was observed on T1-weighted imaging (Picture C). CT angiography disclosed narrow bilateral anterior inferior cerebellar arteries (AICAs) and calcified bilateral vertebral arteries (Picture D).

MCP infarctions are caused by AICA territory ischemia, although the lesions are usually unilateral. Pontocerebellar atrophy with bilateral MCP atrophy is a characteristic MR finding of multiple system atrophy, a sporadic degenerative spinocerebellar ataxia (2). Bilateral MCP infarctions are rare; however, poststroke tissue loss can result in pontocereb-
bellar atrophy, which may resemble degenerative spinocerebellar ataxia.

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References
