

Babinski-Nageotte Syndrome With Ipsilateral Hemiparesis

A46-YEAR-OLD MAN, without a history of hypertension, hyperlipidemia, or type 2 diabetes mellitus, suddenly developed right hemiparesis, reduction of superficial sensation on the left side of the body below the neck, and ataxia of the right limbs followed by right nuchal pain. Dysarthria, hoarseness, dysphagia, hiccup, and paralysis of the right side of the soft palate and tongue were also present. This condition was diagnosed as the Babinski-Nageotte syndrome. Cranial magnetic resonance imaging showed a right hemimedullary infarct at the level of the caudal end of the medulla near the cervicomedullary junction (**Figure 1**). Magnetic resonance angiography and catheter angiography showed multiple tubular stenoses with adjacent fusiform dilatations of the right vertebral artery, otherwise known as the pearl and string sign (**Figure 2**), which strongly suggested arterial dissection of the right vertebral artery. His neurological symptoms gradually improved and he was able to walk a month after admission.

Babinski-Nageotte syndrome is regarded as a combination of the medial and lateral medullary syndrome. Because the arterial blood supply to the dorsolateral and medial parts of the medulla comes from different blood vessels, this syndrome is characterized by the simultaneous occurrence of ischemic lesions of both areas.¹ Hemimedullary infarction has mainly been reported to result from atherosclerotic occlusion of the vertebral artery. In the present patient, however, angiography revealed arterial dissection of the right vertebral artery as the cause of the infarct. Moreover, the patient had ipsilateral hemiparesis, which may be attributed to the localization of the hemimedullary lesion at the level of the lowermost caudal end of the medulla, just below the pyramidal decussation.²

Masayoshi Tada, MD
Mari Tada, MD
Hideaki Ishiguro, MD
Kouichi Hirota, MD

Accepted for Publication: May 5, 2004.

Correspondence: Masayoshi Tada, Department of Neurology, Brain Research Institute, Niigata University 1-757, Asahimachidouri, Niigata-shi, Niigata 951-8585, Japan (tadamasa@bri.niigata-u.ac.jp).

Author Contributions: Study concept and design: Masayoshi Tada, Mari Tada, Ishiguro, and Hirota. Acquisition of data: Masayoshi Tada and Mari Tada. Analysis and interpretation of data: Masayoshi Tada and Mari Tada. Drafting of the manuscript: Masayoshi Tada. Critical revision of the manuscript for important intellectual content: Masayoshi Tada, Mari Tada, Ishiguro, and Hirota. Study supervision: Hirota.

REFERENCES

1. Nakane H, Okada Y, Sadoshima S, Fujishima M. Babinski-Nageotte syndrome on magnetic resonance imaging. *Stroke*. 1991;22:272-275.
2. Dhamoon SK, Iqbal J, Collins GH. Ipsilateral hemiplegia and the Wallenberg syndrome. *Arch Neurol*. 1984;41:179-180.

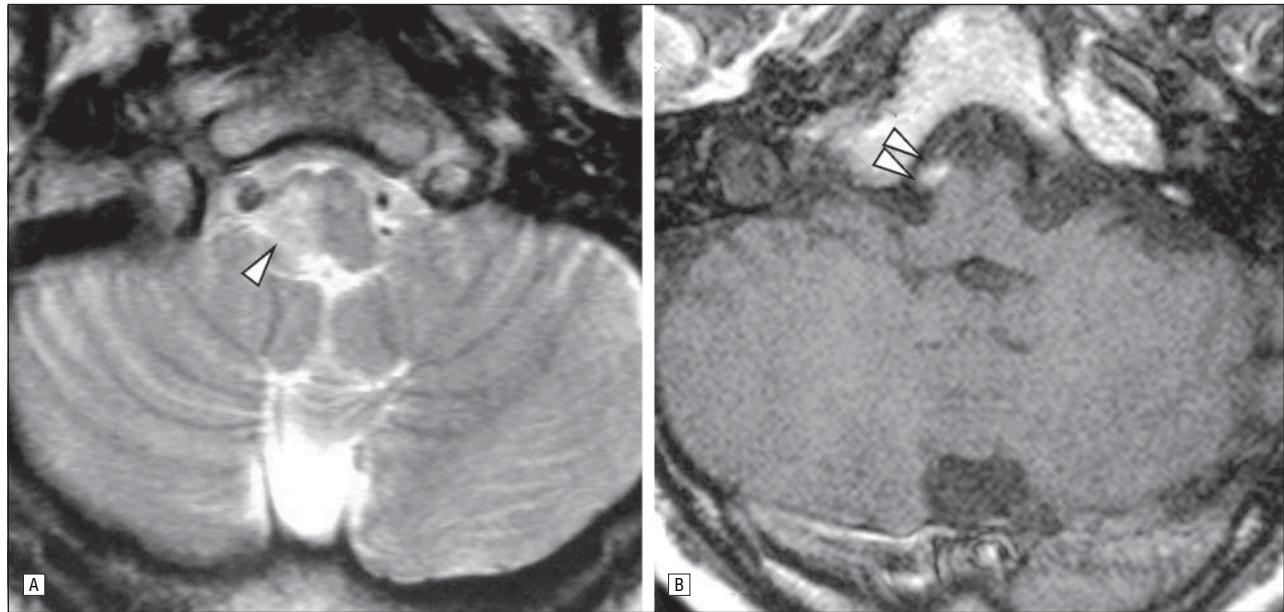


Figure 1. A, T2-weighted magnetic resonance imaging shows a high signal intensity area located in the right ventromedial and dorsolateral parts of the medulla (arrowheads). B, T1-weighted magnetic resonance imaging shows a marked reduction of the flow void of the right vertebral artery (arrowheads) due to the presence of a dissecting intramural hematoma.



Figure 2. Angiography shows tubular and multifocal stenoses with adjacent fusiform dilatations of the right vertebral artery (arrowheads).