

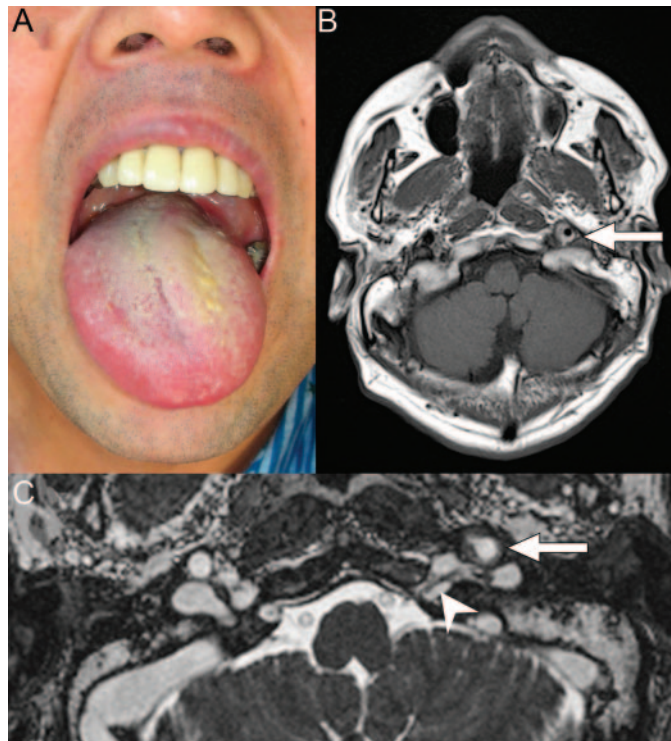
Teaching NeuroImages:

Isolated hypoglossal nerve palsy due to internal carotid artery dissection

Taro Okunomiya, MD
Takashi Kageyama, MD,
PhD
Toshihiko Suenaga, MD,
PhD

Correspondence & reprint
requests to Dr. Suenaga:
suenaga@tenriyorozu.jp

Figure Photograph and brain MRI



(A) The patient's tongue deviated to the left. (B) T1-weighted imaging demonstrates narrowing of the lumen and intramural hematoma in the left internal carotid artery. (C) True fast imaging with steady-state precession reveals the anatomic juxtaposition of the hypoglossal nerve (arrowhead) and the dissected internal carotid artery (arrow).

A 57-year-old man presented with dysarthria and left-sided headache lasting 4 days. Neurologic examination revealed deviation of the tongue to the left (figure, A). MRI demonstrated the left carotid artery dissection (figure, B) and its anatomic juxtaposition with the left hypoglossal nerve (figure, C). Tongue deviation returned to normal after 4 weeks of treatment with aspirin.

Acute tongue deviation with headache is an important manifestation of internal carotid artery dissection. The hypothesized mechanism is direct compression of the hypoglossal nerve by the expanded dissected arterial

wall. Carotid artery dissection affected the hypoglossal nerve in 5% of cases.¹

AUTHOR CONTRIBUTIONS

T. Okunomiya: study concept and design, drafting and revising the manuscript, analysis or interpretation of data. T. Kageyama: critically revising the manuscript for intellectual content. T. Suenaga: study concept and design, drafting and revising the manuscript, analysis or interpretation of data, guarantor of study.

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