

Other

## LOWER CRANIAL NERVES PALSIES IN A PATIENT WITH INTERNAL CAROTID ARTERY REDUNDANCY AND SPONTANEOUS DISSECTION – CASE REPORT

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Internal carotid artery (ICA) dissection is an underrecognized etiology of lower cranial nerves palsies. ICA redundancy is considered a benign vascular anomaly, although with significant prevalence among patients with dissection.

A 40-year-old man, ex-smoker, presented with 5-day left hemicrania, followed by acute-onset of left lingual tumefaction. He mentioned elevated blood pressures in prior days. Laryngeal endoscopy was initially performed showing left lingual base enlargement and left vocal cord palsy. Contrast-enhanced head and neck CT was done to evaluate a possible neoplastic infiltration, however only discrete diffuse left lingual base enhancement was present. Neurologic examination highlighted CN IX, X, XI, XII palsies with dysphagia, dysphonia, lowered palatal fold and absent gag reflex on the left side, left sternocleidomastoid and trapezius diminished contractions, right-sided tongue deviation at rest and left-sided deviation on protrusion. Cerebral MRI with contrast-enhanced MR angiography revealed a parietal dissecting hematoma in the superior cervical and proximal intrapetrous segments of the left ICA. Also, additional loops for both ICA, in their superior cervical segment, were observed. Under antiplatelet, antihypertensive, and analgesic therapy, the patient partially recovered after 2 weeks, and full recovery was present after 3 months.

This patient's dissecting hematoma was superimposed over the left ICA additional loop, causing lower cranial nerve palsies by local compression of adjacent nerves and their vasa nervorum. The same mechanism also provoked left lingual base tumefaction, which is a rare phenomenon known as acute neurogenic denervation. This case gathers several rare occurrences which are rarely described in literature.

