Hypoglossal-vertebral entrapment syndrome

A 54-year-old man presented with nonprogressive dysarthria due to isolated right hypoglossal nerve (HN) palsy. The cranial MRI reveals an ectatic right vertebral artery impinging on the cisternal segment of HN (figure).

The hypoglossal-vertebral entrapment syndrome\(^1\) occurs as the hypoglossal rootlets converge directly over the distorted vessel with resultant mechanical compression and direct nerve ischemia. Indeed, HN partly derives its blood supply from vertebral branches.\(^2\)

Intracranial dolichoectasia is another media-involving arteriopathy with association to small vessel diseases. Validated surgical or endovascular interventions do not exist for this condition. Treatment should address identifiable vascular risk factors along with symptomatic speech rehabilitation.

Yasser Aladdin, MD, Zaeem A. Siddiqi, MD, PhD, Khurshid Khan, MD, FRCPC, S. Nizam Ahmed, MD, FRCPC, Edmonton, Alberta, Canada

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Address correspondence and reprint requests to Dr. S. Nizam Ahmed, Division of Neurology, University of Alberta Hospital, 2E3 Walter McKenzie Center, 8440-112 St., Edmonton, Alberta, Canada T6G 2B7; snahmed@ualberta.ca

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Yasser Aladdin, Zaeem A. Siddiqi, Khurshid Khan, et al.

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