Collet-Sicard Syndrome Secondary to Internal Carotid Artery Dissection: A Firing Link

The Neurohospitalist
2020, Vol. 10(4) 322-323
© The Author(s) 2020
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/1941874420916377
journals.sagepub.com/home/NHO

Verónica Cabreira, MD^{1,2} , Ana Carolina Lopes, MD^{1,2},
Rita Figueiredo, MD³, and Maria Madalena Pinto, MD¹

Keywords

carotid artery, internal, dissection, cerebrovascular disorders, carotid artery diseases, cerebrovascular disorders, Collet-Sicard syndrome, MR angiography

Figure 1. Magnetic resonance (MR) angiography. Axial T2-weighted magnetic resonance imaging (MRI) sequence (A) and axial T1-weighted MRI sequence (B) after injection of gadolinium-based contrast medium showing eccentric, hyperintense crescent-shaped mural hematoma along the lateroposterior right internal carotid artery (ICA) wall (arrows); (C) Coronal T2-weighted MRI sequence after gadolinium depicting right ICA subadventitial dissection sparing the carotid bulb and extending to C1 to C2 level, without significant vessel lumen narrowing (arrow).

A 57-year-old man presented with dysphonia, severe parietal headache, nausea and dysphagia for solid food, appearing sequentially over the course of 10 days. He reported pain and tumefaction on the right side of the neck. Right-sided gag reflex was absent and there was an asymmetrical right palatal and vocal cord paresis, trapezius muscle wasting and hemi-tongue fasciculations. There were no signs of Horner syndrome. Initial axial head computed tomography scan and brain magnetic resonance imaging (MRI) did not disclose any remarkable changes, but further investigation with MRI angiography revealed a distal right internal carotid artery (ICA) dissection (Figure 1). The patient referred hunting as a hobby. A color duplex sonography of the cerebral arteries was performed and besides a small asymmetry on distal ICA caliber, there were no signs of stenosis, occlusion, hypoechogenic wall hematoma, false lumen, hyperechogenic flap, or pseudoaneurysm (Figure 2).

Collet-Sicard syndrome (CSS) is a rare clinical entity characterized by lower cranial nerves IX to XII palsy, sparing the sympathetic fibers, resulting from lesions at the base of the skull that affect both the jugular foramen and hypoglossal canal.^{1,2} There are several known causes of CSS, the most

¹ Department of Neurology, Centro Hospitalar Universitário de São João, Porto, Portugal

² Department of Clinical Neurosciences, Faculty of Medicine, University of Porto, Porto, Portugal

³ Department of Neuroradiology, Centro Hospitalar Universitário de São João, Porto, Portugal

Corresponding Author:

Verónica Cabreira, Neurology Department, Centro Hospitalar Universitário de São João, Alameda Prof. Hernâni Monteiro, 4200-319 Porto, Portugal.
Email: veronica.cabreira@gmail.com

Figure 2. Ultrasound findings (morphologic and hemodynamic signs). A, Distal right internal carotid artery diameter measurement (0.4 cm); (B) Left distal internal carotid artery diameter measurement (0.6 cm); (C) Peak systolic flow at distal right internal carotid artery (66 cm/sec); (D) Peak systolic flow at distal left internal carotid artery (77 cm/sec).

common of which are trauma and neoplasms of the ear and skull base.³ Carotid artery dissection, as in our patient, is a rare cause.⁴ In the absence of a major traumatic injury, we identify the minor repetitive trauma associated with the shooting rifle against the shoulder, causing direct mechanical stress to the artery, as the likely cause of the dissection in this patient.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Verónica Cabreira, MD <https://orcid.org/0000-0001-9945-7681>

References

1. Collet FJ. Sur un nouveau syndrome paralytique pharyngolarynge par blessure de guerre (hemiplegie glosso-laryngoscapulopharyngee). *Lyon Med.* 1915;124:121-129.
2. Sicard JA. Syndrome du carrefour condylodechire posterieur (type pur de paralysie des quatre derniers nerfs craniens). *Marseille Med.* 1917;53:385-397.
3. Barbiero FJ, Baehring JM, Fulbright RK, Becker KP. MRI findings in Collet-Sicard syndrome. *Neurology.* 2017;88(8):811.
4. Mokri B, Silbert PL, Schievink WI, Piegras DG. Cranial nerve palsy in spontaneous dissection of the extracranial internal carotid artery. *Neurology.* 1996;46(2):356-359.