

CLINICAL IMAGE

The “double carotid artery” sign: A rare case of spontaneous carotid dissection

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Abstract

Carotid artery dissection, which accounts for up to 20% of strokes in young patients, usually extends distally and leads to acute stenosis, occlusion and aneurysmal changes with increased risk for thromboembolic events, especially in young people.

KEYWORDS

anticoagulation, carotid artery, dissection, false lumen

Carotid dissection is the result of intramural hematoma that usually extends distally and leads to acute stenosis, occlusion, and aneurysmal changes with increased risk for thromboembolic events, especially in young people. Herein, we present a rare sign that indicates the presence of double lumen which is pathognomonic for carotid dissection.

A 41-year-old male patient, with no medical or traumatic history, was admitted to the emergency department due to severe left-sided head and neck pain started 2 h ago. The physical examination revealed no sign of hemiparesis, dysphasia, Horner syndrome, or any other neurological symptom. The computed tomographic angiography revealed the “double carotid artery” sign (Figure 1), an intimal flap for approximately 2.6 cm creating double lumen in the left common carotid artery until the internal carotid artery (Figure 2). The patient was started on systemic heparin followed by warfarin aiming for an International Normalized Ratio between 2 and 3 for 3 months. At the 3-month follow-up, treatment will be individualized according to vascular imaging. Carotid dissection is the result of



FIGURE 1 “Double carotid artery” sign as presented in the computed tomographic angiography. The red arrow shows the intimal flap in the common carotid artery

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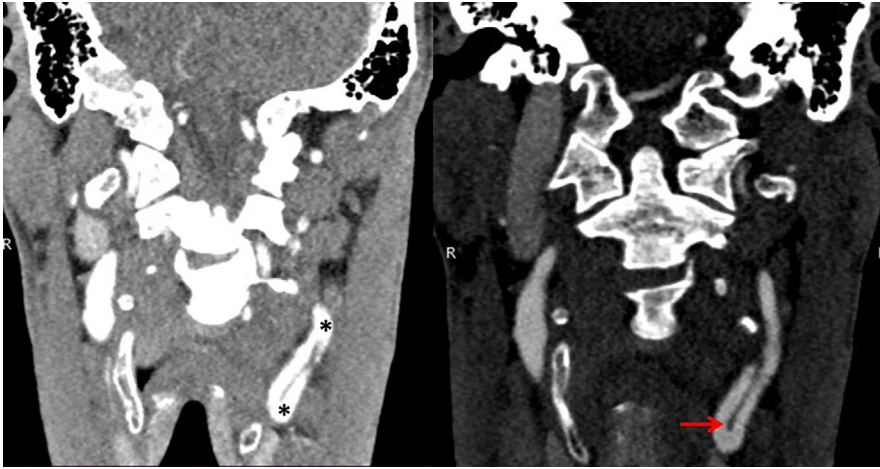


FIGURE 2 Intimal flap (red arrow) creates for approximately 2.6 cm a double lumen in the left common carotid artery (*) until the carotid bulb

intramural hematoma that usually extends distally and leads to stenosis, occlusion, or aneurysmal changes with increased risk for thromboembolic events, especially in young people.¹ The classic triad of symptoms includes ipsilateral head/neck pain, Horner syndrome, and cerebral/retinal ischemia, but is present in one third of these patients. The vast majority of these patients are treated conservatively. According to CADISS trial and meta-analysis of its results,² there was no superiority of anticoagulation or antiplatelet therapy in prevention of stroke after carotid artery dissection.

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CONFLICT OF INTEREST

The authors do not have any conflict of interest to declare.

AUTHOR CONTRIBUTIONS

CPP and KMN designed and framed the manuscript. SIP involved in images. All authors reviewed, edited, and reviewed the literature.

ETHICAL APPROVAL

Patient consent was obtained.

CONSENT

Published with written consent of the patient.

DATA AVAILABILITY STATEMENT

Data openly available in a public repository that issues datasets with DOIs.

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