



## ORAL PRESENTATION

# Carotid web, an underdiagnosed cause of young adult ischaemic stroke?

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### Abstract

**Introduction:** A carotid web is a shelf-like linear filling defect in the posterior aspect of the internal carotid artery bulb and thought to represent an intimal variant of fibromuscular dysplasia. It is a rare and frequently misdiagnosed cause of recurrent ischaemic strokes, especially in young adults.

**Case Report:** A 38-year-old woman, previously healthy, woke up with dysarthria and left hemiparesis. She arrived at the emergency room two hours later, scoring 5 in NIHSS. Head CT revealed an ischaemic lesion (ASPECTS 5-6) in the right middle cerebral artery territory. Angio-CT showed a thrombus in right M1 segment. She had neurological deterioration with anosognosia and hypoesthesia (NIHSS 9). Mechanical thrombectomy was performed (TICI2B). The catheterization of the right carotid artery revealed a double lumen in the posterior aspect of the carotid bulb, at the moment interpreted as a possible dissection. Carotid ultrasonography revealed hypoechoic stenosis of the right carotid bulb, at the posterior wall, after a shelf-like more echogenic

structure, suggesting a thrombus associated with a carotid web membrane. MR-Angiography revealed a thin septum projecting into the carotid bulb lumen. The additional investigation revealed an iron-deficiency anaemia, while the prothrombotic study, EKG and echocardiogram were normal. The patient was anticoagulated and progressively recovered. She was discharged with a minor motor deficit in the left hand and agraphesthesia. After one month on anticoagulation, ultrasound was repeated and the right carotid bulb lesion persisted.

**Conclusion:** Although there is no pathological confirmation of the diagnosis in this case, the morphological features and the absence of other lesions raise the hypothesis of a carotid web in our patient. The epidemiology, pathophysiology, treatment, and prognosis of carotid web is understudied and thus poorly understood. This case raises awareness of carotid web in young patients who have ischaemic stroke in this territory without any other identifiable causes.

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