Short Report

Carotidynia: A Rare Diagnosis in Vascular Surgery Practice

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A 74-year old man was referred to our tertiary referral vascular surgery outpatient clinic with complaints of unilateral neck tenderness. The patient’s medical history included hypertension, type II diabetes, and a coronary artery bypass grafting operation. His medication included carbasalate calcium, an angiotensin II-receptor-antagonist, and metformin, among others.

For 10 days, the patient had been experiencing severe right-sided neck pain and stiffness, accompanied by subjective sensory loss of the jugular area and increased sweating without fever. Paracetamol offered no relief and the pain disrupted the patient’s night rest. There had been no trauma and there were no complaints of headache or signs of infection and the patient had never suffered from migraine.

On physical examination a regular, fit 74-year old man with normal vital parameters was seen without external deviations of the neck. Upon palpation, the patient complained of severe pain at the level of the right carotid bifurcation. Both carotid arteries had normal pulsations and there were no palpable lymph nodes.

Laboratory workup showed no abnormalities with white blood cell counts and C-reactive protein within normal values. An ultrasound was performed without signs of increased lymph node size or other processes. A Duplex ultrasound showed a 50–70% stenosis of the right internal carotid artery while the left carotid artery was unaffected. With increasing complaints, the next day an MRI was performed, revealing perivascular inflammation 3 mm in length ranging from the distal common carotid artery to the proximal internal and external carotid artery without signs of other carotid pathology other than the previously described stenosis (Fig. 1A). These radiologic characteristics suited the diagnosis carotidynia. The patient was treated with non-steroid anti-inflammatory drugs (NSAIDs) for one week, which provided relief of complaints. A follow-up MRI three months afterwards showed normalisation of the perivascular space (Fig. 1B). The complaints did not return.

Discussion

Carotidynia is a diagnosis of exclusion sporadically used by neurologists and ENT-specialists for headaches without specific physical substrate. However, it is a relatively unknown diagnosis among vascular surgeons. In this specific case, the severe pain and subjective sensory loss in combination with the unilateral carotid stenosis lead us to perform an MRI, also to exclude other pathology such as lymphadenopathy, carotid dissection, or a carotid body tumour. Radiologically, carotidynia often shows a short hypoechoic lesion composed of wall thickening of the carotid bulb with outward extension of the vessel wall, which is different from...
atherosclerosis that usually presents in the intima layer of the vessel wall, or carotid artery dissection, that mostly shows a longer lesion with haemodynamic consequences. The aetiology of carotidynia is unknown although it has been suggested a symptom related to vascular (see above) as well as non-vascular processes such as viral infections or migraine. However, a clear correlation to intravascular plaques, present in our patient, has not been established. Following exclusion of other, more severe causes for neck pain and carotid tenderness, carotidynia should be considered and treatment with NSAIDs can be attempted. With relief of complaints, further follow-up imaging is generally not indicated.

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None.

**References**