Transient perivascular inflammation of the carotid artery syndrome

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DESCRIPTION

A 74-year-old man presented with a 2-day history of right-sided neck pain. He denies preceding episodes of infection or trauma. Physical examination revealed localised tenderness on the right carotid artery. No vascular murmur was detected. White cell count, C reactive protein and erythrocyte sedimentation rate were all within the normal range. Ultrasonography showed an eccentric hypoechoic lesion in the perivascular tissue at the level of bifurcation of the right carotid artery without the lumen narrowing or dissection (**figure 1**), findings were consistent with transient perivascular inflammation of the carotid artery (TIPIIC). After taking acetaminophen, the neck pain subsided at a 2-week follow-up. The follow-up ultrasonography showed a striking improvement of the perivascular lesion, which confirmed the diagnosis (**figure 2**).

TIPIIC is a newly recognised syndrome of acute cervical pain, consisting of transient perivascular inflammation at the level of the carotid bifurcation,¹ which describes a distinct clinicoradiologic entity previously known as carotidynia or Fay syndrome.² In 2017, Lecler, *et al* published a clinicoradiological description of TIPIIC syndrome, addressing four major criteria: acute pain over the carotid artery (may or may not radiate to the head), eccentric perivascular inflammation on imaging, exclusion of other diagnoses by imaging and improvement either spontaneously or with anti-inflammatory drugs within 14 days.¹ The mean age at diagnosis is

Figure 1 Ultrasonography showed an eccentric hypoechoic lesion (red arrow) in the perivascular tissue at the level of bifurcation of the right carotid artery.

Figure 2 The follow-up ultrasonography showed striking decrease of the perivascular lesion.

Patient's perspective

I did not know what was causing it at first, but it got better spontaneously in about 2 weeks. I am very grateful for making the diagnosis. I feel relieved.

Learning points

- ▶ Transient perivascular inflammation of the carotid artery (TIPIIC) is a newly recognised syndrome of acute cervical pain, consisting of transient perivascular inflammation at the level of the carotid bifurcation.
- ▶ Although TIPIIC syndrome is rare, it is probably underestimated because of its relatively mild symptoms and rapid improvement.
- ▶ Ultrasonography has the advantage of investigating the exact point of tenderness as directed by the patient and is readily available for follow-up and comparison with the initial study.

37 years (15–78 years). Pain is unilateral in 90% of cases.³ The cause of TIPIIC is unknown. Although TIPIIC syndrome is rare (estimated prevalence of 2.8% in patients presenting with acute neck pain), it is probably underestimated because of its relatively mild symptoms and rapid improvement. Furthermore, ultrasonography has the advantage of investigating the exact point of tenderness as directed by the patient and is readily available for follow-up and comparison with the initial study.

In summary, we report a typical clinical and radiological feature of TIPIIC syndrome. Primary care physicians should remember this new recognised syndrome of acute cervical pain and perform ultrasonography.

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

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REFERENCES

- 1 Lecler A, Obadia M, Savatovsky J, *et al*. TIPIC syndrome: beyond the myth of carotidynia, a new distinct unclassified entity. *AJNR Am J Neuroradiol* 2017;38:1391–8.
- 2 Biousse V, Bousser MG. The myth of carotidynia. *Neurology* 1994;44:993–5.
- 3 Abraham M, Werner M, Gottlieb P, *et al*. Ultrasound for the diagnosis of carotidynia. *J Ultrasound Med* 2017;36:2605–9.

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