Received: 23 April 2023 | Accepted: 27 April 2023

DOI: 10.1002/emp2.12973

JACEP OPEN
JOURNAL OF THE AMERICAN COLLEGE OF EMERGENCY PHYSICIANS OPEN
A GLOBAL JOURNAL OF EMERGENCY MEDICINE
Open Access
WILEY

IMAGES IN EMERGENCY MEDICINE

Imaging

A pain in the neck

Todd P. Ulmer DO | **Chadd K. Kraus DO, DrPH**

Department of Emergency Medicine, Geisinger Health, Danville, Pennsylvania, USA

Correspondence
Chadd K. Kraus, DO, DrPH, Department of Emergency Medicine, Geisinger Health, Danville, PA, USA.
Email: chaddkraus@gmail.com

1 | CASE PRESENTATION

A 57-year-old female with a past medical history of gastroesophageal reflux disease presented to the emergency department (ED) for evaluation of 2 weeks of sore throat and left neck pain. She described the pain as sharp and radiating under her mandible into the base of her neck. The patient stated her pain acutely worsened on the day of presentation, along with an associated diffuse, pressure-like headache with blurry vision and peripheral "flashing lights," prompting her to present to the ED for evaluation. She noted difficulty swallowing solids and liquids secondary to severity of pain. The patient also reported intermittent shortness of breath and subjective fevers.

In the ED, the patient was afebrile with grossly normal vital signs. She was given intravenous ketorolac for pain. The diagnostic evaluation included CBC, comprehensive metabolic panel, mononucleosis heterophile antibody, respiratory pathogen panel, C-reactive protein, and erythrocyte sedimentation rate (ESR). Other than a mildly elevated ESR, the lab values were unremarkable. A computed tomography angiogram (CTA) of the head and neck showed circumferential thickening of the wall of the distal left carotid artery, including the left carotid bulb (Figures 1–4).

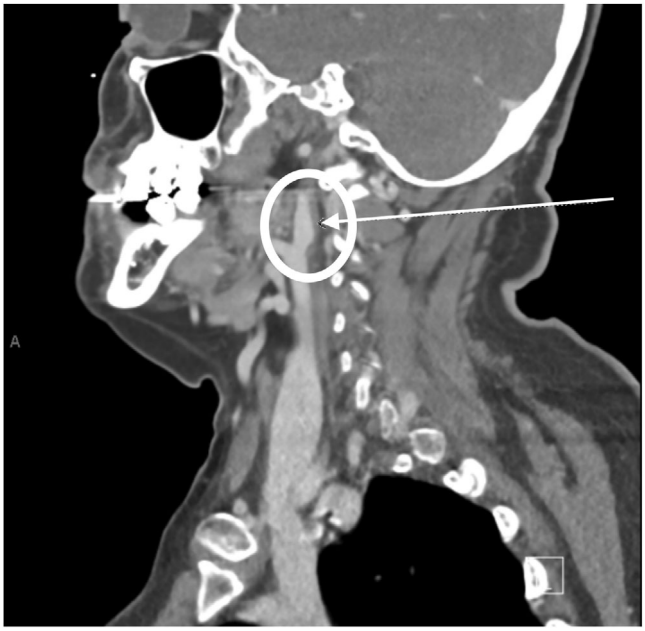

FIGURE 1 TIPIC syndrome on the sagittal plane of the CTA neck. Arrow identifies evidence of circumferential thickening of the left carotid bulb. Abbreviations: CTA, computed tomography angiography; TIPIC, transient perivascular inflammation of the carotid artery.

2 | DIAGNOSIS: TRANSIENT PERIVASCULAR INFLAMMATION OF THE CAROTID ARTERY (TIPIC) SYNDROME

The CTA findings raised concern for carotidynia, or a more recently described entity, transient perivascular inflammation of the carotid artery (TIPIC) syndrome.[1] Carotidynia is a rare vascular disorder that was first described in 1927.[2] It has become a controversial diagnosis,[3] and since its removal from the International Classification of Headache Disorders in 2004, some authors have suggested the term should no longer be used.[1,4] The more recently described TIPIC syndrome often presents with unilateral throbbing pain of the neck and face with tenderness at the level of the bifurcation of the carotid artery.[1] Symptoms can be aggravated by head movements, chewing, yawning, coughing, or swallowing.[5] Some patients with TIPIC syndrome have a history of autoimmune diseases.[1] In the largest case series reported to date,

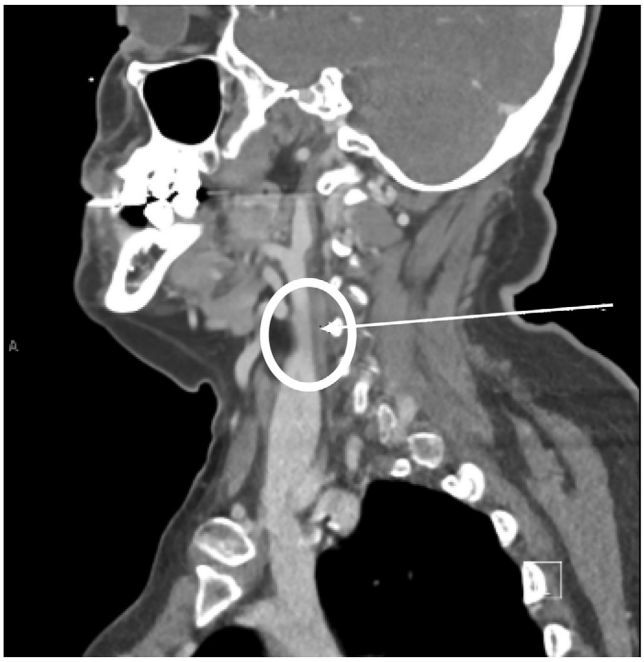

FIGURE 2 TIPIC syndrome on the sagittal plane of the CTA neck. Arrow identifies evidence of circumferential thickening of the distal left common carotid artery. Abbreviations: CTA, computed tomography angiography; TIPIC, transient perivascular inflammation of the carotid artery.

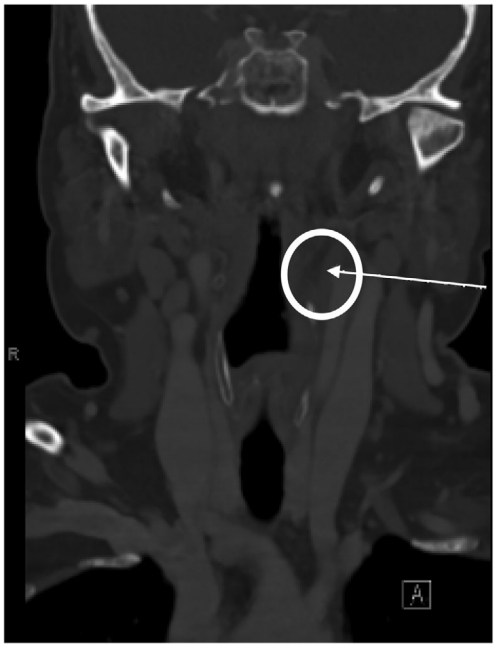

FIGURE 3 TIPIC syndrome on the coronal plane of the CTA neck. Arrow identifies evidence of circumferential thickening of the left carotid bulb. Abbreviations: CTA, computed tomography angiography; TIPIC, transient perivascular inflammation of the carotid artery.

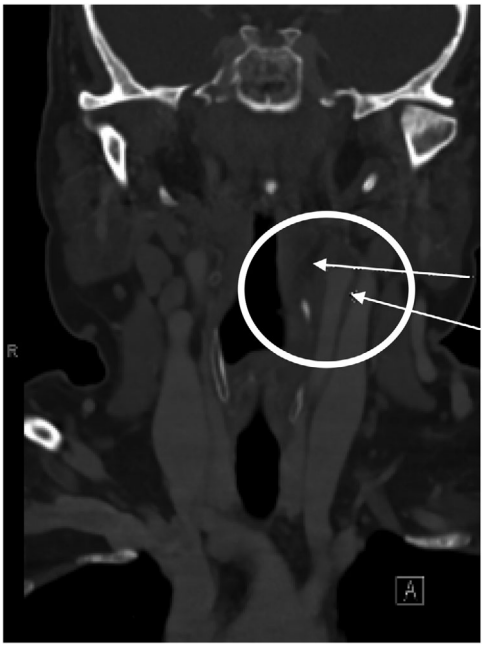

FIGURE 4 TIPIC syndrome on the coronal plane of the CTA neck. Arrows identify evidence of circumferential thickening of the distal left common carotid artery. Abbreviations: CTA, computed tomography angiography; TIPIC, transient perivascular inflammation of the carotid artery.

all patients had resolution of symptoms within 2 weeks with either nonsteroidal anti-inflammatory drugs (NSAIDs) or no treatment at all.[1]

3 | CASE RESOLUTION

From the ED, the patient was hospitalized on the general medical service. Vascular surgery, ear/nose/throat (ENT), rheumatology, neurology, and ophthalmology were consulted during the hospital admission. Vascular surgery recommended no surgical intervention and suggested that NSAIDs and/or steroids might provide symptomatic relief. ENT recommended no intervention. Rheumatology felt the patient's clinical presentation aligned with carotidynia secondary to viral syndrome and completed further diagnostic studies to exclude Takayasu and giant cell arteritis as etiologies. A CTA of the chest, abdomen, and pelvis with runoff performed during hospitalization showed no additional aneurysms or stenosis. Neurology evaluated the patient for headaches and recommended symptomatic treatment as well as magnetic resonance imaging that also correlated with TIPIC syndrome. Ophthalmology was consulted and found no significant evidence of an ophthalmological pathology. The patient's symptoms improved while in the hospital. She was discharged on ibuprofen 600 mg, 3 times daily, and scheduled for outpatient neurology follow-up. This case highlights TIPIC syndrome as an uncommon, yet important to consider, entity in the acute presentation of neck pain in the ED.

ORCID

Chadd K. Kraus DO, DrPH https://orcid.org/0000-0003-3628-2073

REFERENCES

1. Lecler A, Obadia M, Savatovsky J, et al. TIPIC syndrome: beyond the myth of carotidynia, a new distinct unclassified entity. *Am J Neuroradiol (AJNR)*. 2017;38(7):1391-1398.
2. Hill LM, Hastings G. Carotidynia: a pain syndrome. *J Fam Pract*. 1994;39(1):71-75.
3. Hersh SP, Gerard P, Hersh J. Carotidynia versus transient perivascular inflammation of the carotid artery (TIPIC) syndrome: finding common ground. *Cureus*. 2021;13(9):317684.
4. Headache classification subcommittee of the international headache society: the international classification of headache disorders—2nd edition. *Cephalalgia* 2004;24(suppl 1):9-16. doi:10.1111/j.1468-2982.2003.00824.x
5. Abbasi A, Khan MAB. Carotidynia. *StatPearls [Internet]*. StatPearls Publishing; 2022.

How to cite this article: Ulmer TP, Kraus CK. A pain in the neck. *JACEP Open*. 2023;4:e12973.
https://doi.org/10.1002/emp2.12973