The disappearing thrombus

An uncommon cause of ischemic stroke

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A 46-year-old woman presented with 2 episodes of transient left-sided paresis and hypoesthesia lasting 30 minutes. The emergency department initiated a stroke code due to reoccurrence of symptoms. Workup revealed a platelet count of 1,141,000, and CT angiography showed a large pedunculated thrombus within the right internal carotid artery (figure 1). She underwent emergent plateletpheresis without an anticoagulant (unfractionated heparin, low molecular weight heparin). This was not started at the time of initial presentation because of increased bleeding risk in patients with either reactive or essential thrombocythemia.¹ Eighteen hours after initial presentation, repeat imaging showed resolution of the thrombus with small areas of acute ischemic infarcts (figure 2). It was thought that this was due to artery-to-artery emboli from the thrombus. Given that there was no hemorrhage on the imaging, she was started on 325 mg aspirin daily. Three days after presentation, she was discharged from the hospital without neurologic deficits. At last follow-up, 13 months poststroke, she does not have any neurologic deficits.

Figure 1 Neck CT angiography prior to treatment

(A) Axial image shows hypodensity within the right internal carotid artery. (B) Sagittal image shows large thrombus with pedunculated attachment to the vessel wall.

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Funding information and disclosures are provided at the end of the article. Full disclosure form information provided by the authors is available with the **full text of this article** at Neurology.org/cp.

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Figure 2 Head and neck MRI/magnetic resonance angiography post plateletpheresis

(A) Sagittal image of the neck demonstrates complete resolution of the thrombus after treatment. (B) Axial diffusion-weighted image demonstrates deep white matter areas of restricted diffusion consistent with watershed infarction thought to be due to artery-to-artery embolization from the thrombus.

A bone marrow biopsy was consistent with essential thrombocythemia. In the setting of cardiovascular emergency from essential thrombocythemia, plateletpheresis is the preferred treatment.² Afterwards, bone marrow suppression and antiplatelet therapy can decrease the risk of recurrent ischemic events.^{2,3}

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STUDY FUNDING

No targeted funding reported.

DISCLOSURES

D. Lerner is listed as author on 2 patents re: antimicrobial hand wash. C. Graffagnino serves on a Scientific Advisory Board and as a consultant for Novella; received an educational grant for residency education from Edge Therapeutics; and receives research support from The Medicines Company and Ornim. Full disclosure form information provided by the authors is available with the **full text of this article at Neurology.org/cp**.