CLINICAL IMAGE •

Isolated Spontaneous Celiac Artery Dissection

49-year-old male complaining of persistent stabbing pain in the left upper quadrant of his abdomen and that was radiating to his back was transferred to our emergency department. An initial computed tomography (CT) scan and Doppler ultrasonography revealed an intravascular filling defect in the celiac trunk. The patient had no history of smoking, drinking, hypertension, or trauma. The physical and laboratory examinations were normal. A contrast-enhanced CT scan revealed an intimal flap in the celiac trunk and a mural thrombus (Figure 1A) extending to the splenic artery and proximal hepatic artery (Figure 1B) and causing moderate to severe narrowing of the celiac artery (demonstrated by CT angiography) (Figure 2) as well as a thrombosed false lumen, increased attenuation of the surrounding fat, and a segmental splenic infarction (Figure 1). Findings were consistent with celiac artery dissection (CAD).

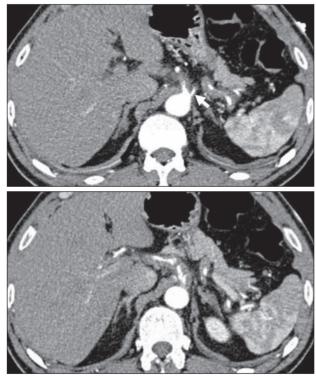


Figure 1. Contrast-enhanced CT scan revealed an intimal flap in the celiac trunk and a mural thrombus (A, arrow), which extended to the splenic artery and proximal hepatic artery (B).

Medical treatment with anticoagulant and anti-inflammatory drugs was implemented, according to the vascular surgeon's recommendation, which gradually alleviated the pain. A week later, a repeated Doppler ultrasonography showed that not only blood flow at the visceral branches but also organ perfusion had been restored to normal. He remained asymptomatic during a 12-month follow-up period.

Arterial dissection is the separation of the layers of the arterial wall and is caused by an intramural hematoma between 2 elastic layers (1); infrequently seen is the isolated dissection of the celiac artery. The most common presenting symptom is sharp, stabbing pain that, in some cases, radiates to the back. The sequelae of CAD include ischemia, aneurysm formation, and rupture. Angiography, ultrasonography, CT, and MRI are the common diagnostic modalities. CT scanning with 3-dimensional reconstruction has been the first-line technique for diagnosing CAD as it quickly and reliably provides typical CT findings such as intimal flap, mural thrombus, false lumen, and aneurysm (1,2). The management options of an isolated CAD include surveillance; medical, surgical, or endovascular repair; and transcatheter embolization (3,4). Which strategy is chosen depends on the severity of the dissection, collateral reconstitution, hemodynamic status, and the surgeon's expertise. Anticoagulation and/or antiplatelet agents are indicated to prevent thromboembolic complications.



Figure 2. CT angiography showed the presence of moderate to severe narrowing of the celiac artery (arrow).

References

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Yang Song, MD, Emergency Department, PLA General Hospital, Beijing, 100853 China; Qing Xiao, MD, Emergency Department, Beijing Electric Power Hospital, Beijing, 100073 China; Quanda Liu, PhD, MD, Emergency Department, PLA General Hospital, Beijing, 100853 China