Rupture of an uncommon mediastinal aneurysm resulting in spontaneous hematoma

A 61-year-old man with a 10-year history of bronchiectasis presented to our hospital with a sudden onset of chest pain, epigastric pain, and excessive sweat. Chest computed tomography (CT) showed a large mass having mixed density in the posterior mediastinum extending all the way up to the aortic arch level. Bilateral cystic bronchiectasis was found in the lower lobe. Contrast-enhanced CT revealed a massive mediastinal hematoma and an adjacent aneurysm originating from the left gastric artery (Fig. 1a, 1b). Shortly after admission, the patient’s hemoglobin level rapidly dropped from 10.3 g/dL to 8.6 g/dL. Hemodynamic instability accompanying CT findings necessitated immediate angiography. Selective angiography of the left gastric artery revealed a distant aneurysm measuring 10 mm in diameter located in the posterior mediastinum (Fig. 2a). After endovascular embolization (Fig. 2b), the patient immediately recovered from hemodynamic instability and was discharged home 1 week later with an uncomplicated hospital course. Posterior mediastinal hematoma from a ruptured aneurysm of the left gastric artery is a rare and potentially lethal condition. Given the patient’s history and imaging findings, it is likely that his mediastinal hematoma is a result of contained rupture of the left gastric artery aneurysm related to long-term bronchiectasis. It is known that chronic infectious lung diseases frequently result in well-developed collateral circulation of bronchial and non-bronchial systemic arteries. Among them, the left gastric artery branch is a more common donor of collaterals to the bronchial system. Contrast-enhanced CT is the most commonly used method to identify mediastinal hematoma and detect the source of bleeding. Transcatheter arterial embolization is a feasible and an effective treatment for controlling life-threatening bleeding from a left gastric artery aneurysm.

Informed consent: Informed consent was obtained from the patient.

Chunsheng Feng, Xiaqian Lu*, Dianbo Cao*
Departments of Anesthesiology and *Radiology, The First Hospital of Jilin University; Changchun-China

Address for Correspondence: Dianbo Cao, MD, Department of Radiology, The First Hospital of Jilin University; No.1 Xinmin Street 861 Changchun-China
Phone: 15804300215
E-mail: caotianbo@126.com
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