Bronchial Dieulafoy Lesion

A 20-Year History of Unexplained Hemoptysis

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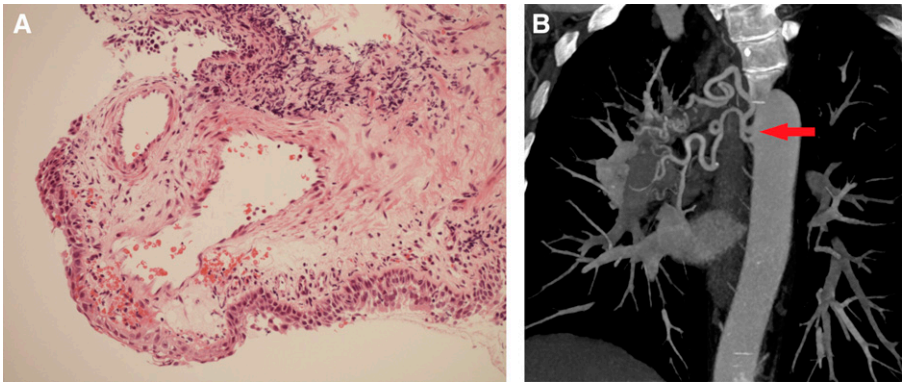

Figure 1. (*A*) Bronchial biopsy showing large muscular vessel in the superficial bronchial mucosa, just underlying the respiratory epithelium (hematoxylin and eosin, ×200). (*B*) A coronal image of the contrast-enhanced computed tomography of the aorta reveals two large bronchial arteries (*red arrow*), which extend from the aorta at the 9 o'clock position in the axial plane, to the right hilum, predominantly to the upper lobe.

A 47-year-old man presented with a 20-year history of recurrent hemoptysis. The episodes occurred intermittently, producing up to 20 ml of sputum stained with fresh blood after coughing. He smoked cigarettes and accrued a 70–pack-year history.

Flexible bronchoscopy revealed a small polypoid lesion at the secondary carina between the superior and posterior segments of the right lower lobe, which bled under direct vision with minimal contact during episodic coughing. Histology (Figure 1A) revealed superficial ectatic vessels with acutely inflamed squamous metaplasia. There was no evidence of granuloma, dysplasia, or malignancy. On deeper sections, the superficial mucosal vessels were larger, with a muscular wall characteristic of a Dieulafoy lesion.

A computed tomography aortogram (Figure 1B) identified a stenosis of the right superior pulmonary vein with large venous collaterals bridging to the inferior pulmonary vein. In addition, two large bronchial arteries were identified extending from the thoracic aorta to the right hilum and right upper lobe.

The abnormal bronchial arteries and Dieulafoy lesion were successfully embolized with complete resolution of hemoptysis. At routine follow up there were no further episodes of hemoptysis reported.

Dieulafoy malformation was first characterized by the French surgeon Georges Dieulafoy in relation to gastrointestinal bleeding in the stomach in 1898 (1). Dieulafoy malformations are vascular anomalies usually seen in the gastrointestinal tract, where a superficial dysplastic artery is identified in the submucosal tissue of the stomach. Bronchial Dieulafoy lesions are extremely rare. Bronchial arteriography is required for anatomic diagnosis, and selective therapeutic bronchial artery embolization may be successful for treatment. ■

Author disclosures are available with the text of this article at www.atsjournals.org.

Reference

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Supported by the National Institute for Health Research Respiratory Biomedical Research Unit at the Royal Brompton and Harefield National Health Service Foundation Trust and Imperial College London.

Am J Respir Crit Care Med Vol 195, Iss 3, p 397, Feb 1, 2017

Originally Published in Press as DOI: 10.1164/rccm.201609-1932IM on December 7, 2016
Internet address: www.atsjournals.org