ACG CASE REPORTS JOURNAL

IMAGE | ESOPHAGUS

A Bronchogenic Cyst Presenting as Dysphagia

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Case Report

We present a 26-year-old woman from Mali who immigrated to the United States 6 months prior to admission. A mediastinal mass was discovered on chest x-ray during routine tuberculosis screening. Bronchoscopic biopsies were inconclusive due to inadequacy of the specimen. Five months later, the patient presented with dysphagia, 2.75-kg weight loss, chest pain radiating to the back, fatigue, shortness of breath, and palpitations. An esophagram showed anterior compression of the esophagus just below the carina (Figure 1). A CT scan revealed an elliptical, well-marginated mass in the middle mediastinum compressing the esophagus and left atrium (Figure 2). EGD revealed normal-appearing mucosa and signs of extrinsic compression on the anterior esophagus (Figure 3). MRI confirmed the mass effect and showed wall enhancement of a well-circumscribed mass with hyperintensity in T2 weighted images and hypointensity in T1 weighted images. The patient underwent video-assisted thoracoscopic (VATS) excision of the cyst with a lymph node biopsy. The surgical specimen consisted of multiple tan and brown tissue fragments measuring 2.5 x 2 x 5 cm in aggregate. Microscopically, the cyst was lined with respiratory-type epithelium (pseudostratified columnar) with prominent cilia consistent with a bronchogenic cyst. The patient had an uneventful postoperative course with complete symptom resolution.

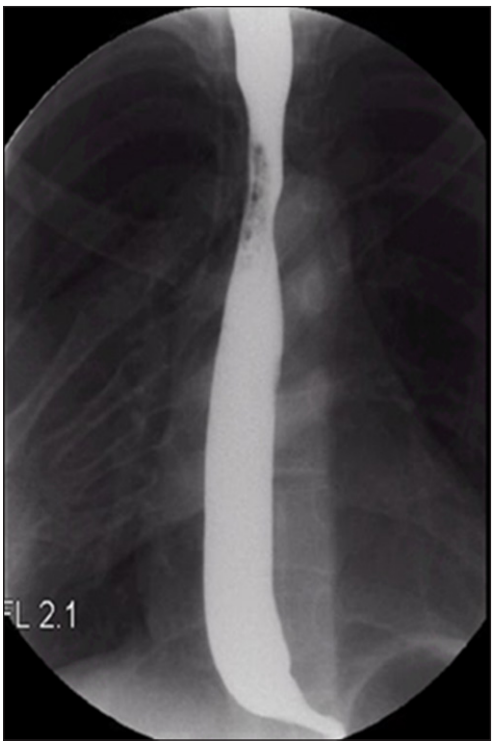

Figure 1. Esophagram showing anterior compression of the esophagus just below the carina most consistent with impression from subcarinal bronchogenic cyst.

Bronchogenic cysts are congenital foregut malformations that develop due to abnormal budding of the embryonic foregut and tracheobronchial tree. They are usually mediastinal or intrapulmonary, but can rarely be located in the lower neck. The mediastinal location is more common, and bronchogenic cysts comprise of up to 40-50% of all congenital mediastinal cysts.[1] Although bronchogenic cysts are usually detected incidentally, 45% of patients will develop symptoms in their lifetime. This may be related to the location of the cyst rather than cyst size; cysts located above the hilum pose a higher risk for compressive symptoms.[2,3] Cough and pain are the most common symptoms of bronchogenic cysts; however, serious complications such as SVC syndrome and arrhythmias have occurred as a result of extrinsic compression.[4,5] Bronchogenic cysts, even when asymptomatic, have been treated surgically to prevent the development of complications and to eliminate the potential for malignant transformation.[2] VATS has been suggested as the first approach for bronchogenic cyst excision, since it offers postoperative benefits and shorter hospital stays compared to traditional thoracotomy. The likelihood of complications and recurrence rate are similar for both procedures.[6]

ACG Case Rep J 2015;2(4):194-195. doi:10.14309/crj.2015.53. Published online: July 9, 2015.

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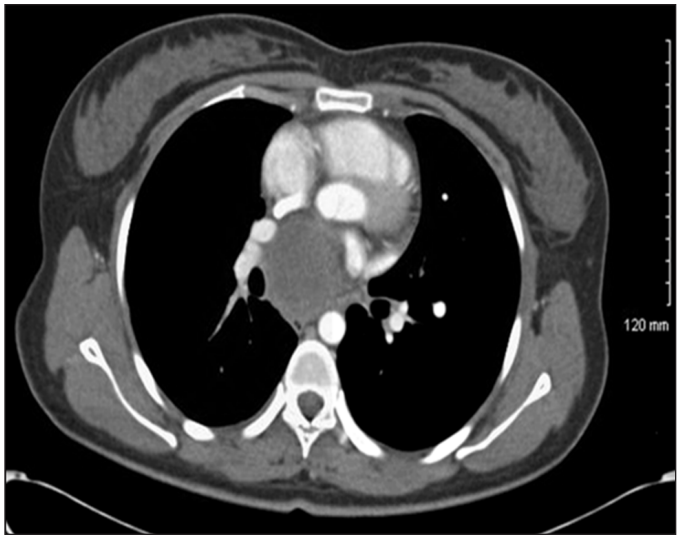

Figure 2. Chest CT showing a 45 x 38 x 46 mm elliptical, well-marginated mass measuring about 34-35 Hounsfield units in the middle mediastinum just below the carina.

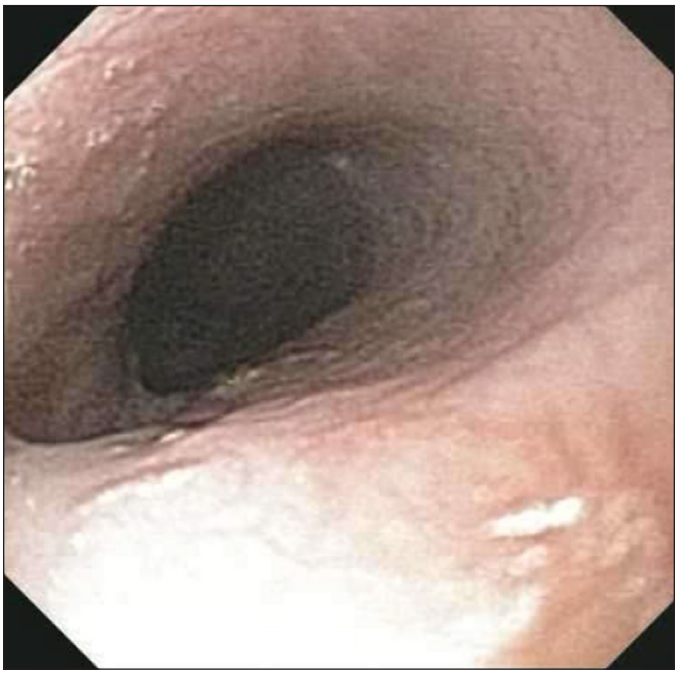

Figure 3. EGD showing normal-appearing mucosa and signs of extrinsic compression on the anterior esophagus.

Disclosures

Author contributions: S. Kapoor wrote the manuscript. J. Abed reviewed and edited the manuscript and is the article guarantor. V. Dalapathi contributed to obtaining the figures. S. Prajapati contributed to the pathology images. FY Bhora, PK Mankal, and DP Kotler reviewed the manuscript.

Financial disclosure: None to report.

Informed consent was obtained for this case report.

Received: March 15, 2015; Accepted: April 20, 2015

References

1. Berrocal T, Madrid C, Novo S, et al. Congenital anomalies of the tracheobronchial tree, lung, and mediastinum: Embryology, radiology, and pathology. *RadioGraphics*. 2004;24(1):e17–e17.
2. Kirmani B, Kirmani B, Sogliani F. Should asymptomatic bronchogenic cysts in adults be treated conservatively or with surgery? *Interact Cardiovasc Thorac Surg*. 2010;11(5):649–59.
3. Ribet ME, Copin MC, Gosselin B. Bronchogenic cysts of the mediastinum. *J Thorac Cardiovasc Surg*. 1995;109(5):1003–10.
4. Bankoff MS, Daly BD, Johnson HA, Carter BL. Bronchogenic cyst causing superior vena cava obstruction: CT appearance. *J Comput Assist Tomogr*. 1985;9(5):951–2.
5. Watson AJ, Chaudhary BA. Cardiac arrhythmias and abnormal chest roentgenogram: Bronchogenic cyst. *Chest*. 1987;92(2):335–6.
6. Merchán R, Loscertales M, Valera G, et al. Resection of 8 mediastinal bronchogenic cysts by video-assisted thoracoscopy. *Arch Bronconeumol*. 2008;44(4):220–3.

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