

## Intradiaphragmatic Bronchogenic Cysts

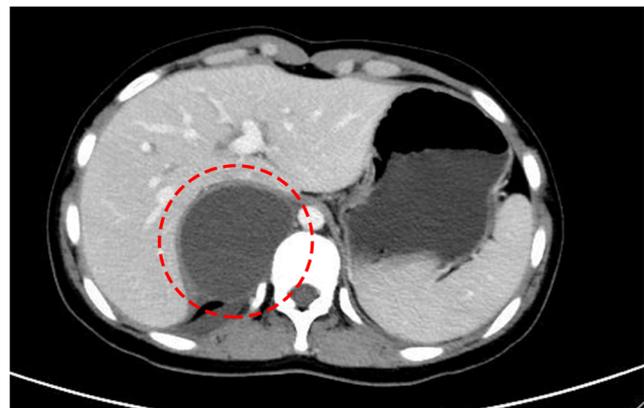
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A 16-year-old girl was referred to our hospital with acute and persistent upper right abdominal pain for 4 days. No trauma history could be elicited. No cardiopulmonary or chest wall abnormality was evident on clinical examination. A computed tomography (CT) of the chest abdomen was performed that showed a well-defined nearly circular hypoattenuating lesion (20–30 HU). The lesion was centered in the right crus of the diaphragm adjacent to the descending thoracic aorta and produced compression to the liver (Fig. 1). There was no calcification or post-contrast enhancement within this lesion. The differential diagnosis included diaphragmatic tumor, diaphragmatic hernia, neurogenic tumor, hydatid cysts, or esophageal diverticulum. The patient underwent a thoracoscopic excision of the cystic lesion. It was covered by diaphragmatic muscle fibers and closely attached to the esophagus. The pleural surface of the diaphragm was scored and the muscle was cut to expose the cyst completely, which was filled with mucus. The diaphragmatic and esophageal defect was closed with interrupted sutures. Notably, the abdominal surface of the diaphragm and

inferior aspect of the esophagus remained intact. The excised cyst was collapsed, measuring approximately 6.5 × 5.5 cm (Fig. 2a). Microscopically, the cyst was lined by ciliated pseudostratified columnar epithelium and contained thin layers of smooth muscle (Fig. 2b). These findings confirmed the diagnosis of bronchogenic cyst. The postoperative course was uneventful. She was doing well on his postoperative clinic visit, with resolution of his preoperative pain. Bronchogenic cysts are rare congenital anomalies of the embryonic foregut. These lesions occurred mostly in the mediastinum or pulmonary parenchyma.<sup>1</sup> Ectopic bronchogenic cysts are often found in the lung, pleura, retroperitoneum, and neck, while the case in the diaphragm is one of the rarest accounting for less than ten cases in the English literature.<sup>2,3</sup>



**Fig. 1** Contrast-enhanced CT showing the intradiaphragmatic cyst (red circle)

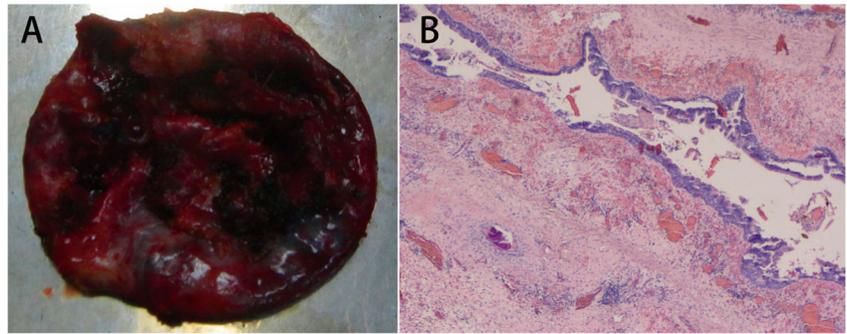
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**Fig. 2** **a** Collapsed cyst after complete resection. **b** Microphotographs of the excised lesion revealed the mass to be consisted of smooth muscle and pseudostratified ciliated columnar epithelium



**Authors' Contributions** (I) Conception and design: ZC Li, CY Bai; (II) Administrative support: Y Li, ZC Li; (III) Provision of study materials: JL Ye; (VI) Manuscript writing: All authors; (VII) Final approval of manuscript: All authors.

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