Unusual presentation of a large tension bronchogenic cyst in an adult

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Abstract
A routine chest radiograph in a 20 year old man revealed a giant air filled cavity of the left hemithorax under tension. At thoracotomy a large left lower lobe intraparenchymal cyst required lobectomy and the pathological findings were consistent with a bronchogenic cyst. Although tension bronchogenic cysts are common in infants, this case demonstrates their unusual presentation in an adult.

Figure 1  Chest radiograph showing a large cystic lesion occupying almost the entire left hemithorax displacing the trachea and mediastinum to the right.

Discussion
Pulmonary bronchogenic cysts present radiographically in three different patterns depending on the extent of bronchial or parenchymal communication and the secretory capacity of the lining epithelium. If no communication is present the cyst will appear as a homogeneous mass with a density of water or a nodule, while communicating cysts will be air filled or contain an air-fluid level. Lesions do not generally communicate with the tracheobronchial tree until they become infected. The development of a large air filled cyst may be due to a one way ball valve which allows air to enter but not to leave the cyst. The present case is unusual since most reports of giant air filled cysts compressing adjacent lung parenchyma and the mediastinum occur in infants. To our knowledge there are only a few pathologically confirmed reports of such cysts occurring in older infants.
examination revealed pseudostratified ciliated columnar epithelium consistent with a bronchogenic cyst. Although a healed abscess may occasionally epithelialise with pseudostratified ciliated epithelium, we believe this is unlikely in our case since there was no history of prior respiratory illness.

Bronchogenic cysts were thought to present incidentally on chest radiographs or at necropsy in adults. More recent reports, however, have shown that most cysts present with symptoms or become symptomatic. In a large series by St-George et al 82% of bronchogenic cysts produced symptoms, complications, or both. In their series most patients with parenchymal cysts had cough, fever, and purulent sputum due to infection within or surrounding the cyst. Infection of the cyst, with formation of a fistula into a bronchus or the adjacent lung parenchyma, was present in 13 of 20 patients. Because of the frequency of complications and the poor operative outcome, resection is recommended for all presumed bronchogenic cysts in the adult.