Case report - Congenital

An intrapericardial bronchogenic cyst

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Received 10 October 2002; received in revised form 11 February 2003; accepted 17 February 2003

Abstract

Bronchogenic cysts arise from an abnormal budding of the ventral diverticulum of the foregut or the tracheobronchial tree during embryogenesis. Rarely they develop within the pericardium. Symptoms of intrapericardial bronchogenic cysts such as chest pain, shortness of breath and arrhythmias can vary according to the location of the cyst, its size and compression of heart and vessels. In this case report we present a young woman in whom the diagnosis of an intrapericardial bronchogenic cyst was made by echocardiography and later was approved intraoperatively.

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Keywords: Bronchogenic cyst; Echocardiography; Intrapericardial; Mediastinal

1. Case report

A 34 year old woman presented to the hospital complaining of shortness of breath and chest pain of recent onset radiating to the left shoulder and worsening during inspiration. The physical examination was unremarkable except for sinus tachycardia of 110/min. Transthoracic and transesophageal echocardiography revealed a large intrapericardial bronchogenic cyst compressing the left atrium, the superior vena cava and the right pulmonary artery (Fig. 1). The diagnosis of an intrapericardial cyst was based on the fact that there was no pericardium between the cyst and the region of the superior vena cava, the pulmonary artery and the aorta. A computed tomographic (CT) scan was obtained and showed a subcarinal cyst of 5 × 6 × 5 cm in diameter (Fig. 2). The patient underwent an uncomplicated resection of the intrapericardial cyst through a postero-lateral thoracotomy. Histological examination of the resected tissue revealed respiratory epithelium lining the capsular wall, intramural islets of cartilage and infiltration by chronic inflammatory cells. The postoperative course was uneventful.

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Fig. 1. Transesophageal echocardiogram showing the bronchogenic cyst compressing the left atrium (LA) and the superior vena cava (SVC). IVC = inferior vena cava. RA = right atrium.
Bronchogenic cysts arise from an abnormal budding of the ventral diverticulum of the foregut or the tracheobronchial tree during embryogenesis. They may arise from many locations depending on the time of their formation during embryogenesis, including the pericarinal, paratracheal and intrapulmonary regions, along the esophagus and below the diaphragm. Rarely they may also develop within the pericardium [1].

Bronchogenic cysts account for 6–15% of primary mediastinal masses [2]. They often present without symptoms and are detected incidentally on routine chest X-ray examinations. Symptoms of intrapericardial bronchogenic cysts such as chest pain, shortness of breath and arrhythmias can vary according to the location of the cyst, its size and compression of heart and vessels. Thus it is important to consider this rare entity in the differential diagnosis of these symptoms.

References


Appendix A. ICVTS on-line discussion

Author: Praveen Varma, Assistant Professor, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Cardio-vascular and Thoracic Surgery, Trivandrum 695011, India
Date: 06-May-2003 12:13

Message: The authors have described an intra-pericardial bronchogenic cyst. But the CT scan shows it as arising from the sub carinal region. The echo picture also shows a clear demarcation from LA. Could it be that the cyst arising from the sub carina is compressing the posterior pericardium? The fact that it was approached through thoracotomy also indicates that it was probably arising from posterior mediastinum. Subcarinal fore gut cysts are well known.