A 40-year-old man was seen in the emergency room with complaints of palpitations, dyspnea, and dysphagia of several weeks' duration. He was admitted to the hospital because of frequent atrial and ventricular tachyarrhythmias. On physical examination, the patient was in no acute distress. His pulse was 104 bpm and irregular. Neck veins were not distended. Lungs were clear to auscultation. Heart sounds were irregular. There were no murmurs. Electrocardiographic examination revealed a normal axis, nonspecific ST-segment changes, frequent premature atrial complexes, as well as frequent premature ventricular complexes. Chest roentgenogram is shown in Figure 1.

The patient's dysrhythmias were not completely controlled by lidocaine therapy. Three days after admission, he experienced supraventricular tachycardia and multiple short runs of ventricular tachycardia. Thereafter, he was maintained on therapy with mexilitine and verapamil.
**Diagnosis: Bronchogenic cyst**

An echocardiographic examination revealed normal left ventricular dimensions and function and a large extracardiac cystic lesion which was nearly obliterating the left atrial cavity by extrinsic compression. Computerized tomographic study showed an 8.5 cm cystic lesion displacing the heart anteriorly, and displacing the esophagus to the left. Thoracotomy revealed a large bronchogenic cyst attached to the pericardium, the right middle lobe and the lower portion of the right upper lobe, and collapse of the right lower lobe. A right lower lobectomy with removal of the cyst was accomplished.

Following surgery, the patient experienced some atrial dysrhythmias that were controlled with digoxin therapy. Drug therapy was discontinued after one month with no subsequent difficulties. He has remained asymptomatic during six months of follow-up.

Congenital cysts comprise approximately 20 percent of primary mediastinal lesions and occur with about equal frequency in adults and children.1 Pericardial cysts make up approximately 40 percent of mediastinal cysts, the remaining 60 percent arising from the embryonic foregut.2 At about three to six weeks of gestation, the primitive foregut gives rise to the ventral trachea and dorsal esophagus. The most common anomalies of the ventral foregut include bronchogenic cysts, sequestration of the lung and tracheal lobes. Anomalies of the dorsal foregut give rise to esophageal diverticula and enteric duplication cysts. Anomalies of foregut seption give rise to tracheoesophageal fistulae and esophageal atresia. Bronchogenic cysts are usually unilocular and are lined with ciliated columnar epithelium, often containing fragments of cartilage and smooth muscle within the wall. They usually lie in the posterior mediastinum, but may occasionally be extrathoracic, occurring in the lower neck, the abdomen, or even at more distant sites. Cysts are nearly always attached to the major airways or esophagus by a dense fibrous band. Occasionally, they communicate with the airway.

Bronchogenic cysts may be an incidental radiologic finding in adult life or may produce symptoms by infection or compression of various organs.3 Gourin et al4 described six adult patients with bronchogenic cysts; one patient was asymptomatic and five patients had symptoms of dyspnea, chest pain, cough or pneumonitis. Sirivella et al5 reported 12 patients with bronchogenic cysts; two were asymptomatic, ten had a nonproductive cough, nine had retrosternal chest pain, and eight had dyspnea. Less frequent symptoms include recurrent pneumonia, dysphagia and weight loss. Infection is a common complication in bronchogenic cysts and may be associated with more serious complications such as unresolving lung abscess or respiratory distress. Cysts may rupture into the pleural or pericardial space, causing infection.

Cardiovascular manifestations of bronchogenic cysts have rarely been reported. Selke et al6 described long-term compression of the left pulmonary artery by a bronchogenic cyst causing hypoplasia of the vessel. Pulmonary artery compression by cysts, producing pulmonary stenotic murmurs and at time pressure gradients across the pulmonic valve, have been reported.7,8 Superior vena cava syndrome may occur because of the extrinsic compression.9 Reinhart et al10 reported a patient who had auscultatory findings of mitral stenosis due to pericardial compression by a cyst.

We have not found previous reports of cardiac arrhythmias caused by bronchogenic cysts. We believe the atrial and ventricular tachycardias experienced by this patient were due to cardiac compression by the bronchogenic cyst. The patient did not have intrinsic cardiovascular disease and his arrhythmias disappeared following resection of the bronchogenic cyst.

**REFERENCES**

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Roentgenogram of the Month (Watson, Chaudhary)