A 60-year-old white woman with long standing heart disease was admitted to the hospital on April 25, 1963 in left-sided heart failure. She improved on medical therapy. On April 28, 1963, she became acutely dyspneic and agitated. Physical examination revealed a regular heart rate of 96, respiratory rate of 30 and blood pressure of 130/90. Percussion and auscultation revealed dullness and decreased breath sounds over the entire left hemithorax. The liver edge was palpable three inches below the right costal margin. A portable chest film was subsequently obtained.

FIGURE 1: April 25, 1963.

**Answer:** Collapse of the Left Lung Secondary to Massive Enlargement of the Left Atrium

In Fig. 1, the heart is seen to be considerably enlarged with a prominent left atrial appendage, elevation of the left main bronchus and a large density seen through the heart—all indicative of a large left atrium. The configuration is rather typical of rheumatic heart disease with mitral involvement. The infiltrate in the right lower lung proved to be a pulmonary infarct. In Fig. 2 the left hemithorax is opacified and the mediastinal structures are shifted to the left, indicating collapse of the entire left lung.

Left thoracentesis proved dry. At bronchoscopy the left main bronchus was narrowed by external pressure. It could be dilated by the bronchroscope and pinkish, frothy sputum was aspirated. No endobronchial lesion was seen. A chest film the following day showed re-expansion of the left lung.

Cardiac enlargement produces pulmonary collapse by compression of the bronchus. This most commonly occurs in the left lower lobe, but compression of the left main bronchus or, rarely, of the right middle lobe bronchus may occur. The type of heart disease usually responsible includes rheumatic mitral disease, endocardial fibroelastosis, atrial septal defect and patent ductus arteriosus. Rivkin, et al. reported eight cases of massive atelectasis of the left lung in infants with congenital heart disease of various types. These authors felt that the mechanism for the production of atelectasis was compression of the left main bronchus by an enlarged left pulmonary artery. One of their patients with total anomalous pulmonary venous return actually had an abnormally small left atrium and still developed collapse of the left lung. Rivero-Carvallo studied 600 patients with left bronchial compression, six of whom actually developed complete bronchial occlusion. In 96 per cent of the cases, left atrial enlargement accounted for the compression, and in the remaining 4 per cent, dilatation of the first portion of the descending aorta was considered the etiologic factor.

In any cardiac patient in whom collapse of the left lower lobe or of the entire left lung is encountered, a causative relationship must be seriously considered. This is particularly true of rheumatic mitral disease.

**References**


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**Tumors of the Esophagus**

The coexistence of malignant and nonmalignant tumors of the esophagus is rare. During the past 16 years, the authors operated on about 500 patients with carcinoma of the esophagus, but encountered only one similar case. The invasion of a fibrous polyp in the esophagus by an epithelioma was reported by Targent in 1895. Schirmer observed a carcinoma in close proximity to a lipomatous polyp near the cardiac end of the esophagus. Callanan in 1954 and Puestow et al. in 1955 reported the simultaneous occurrence of a small intramural leiomyoma and an overlying squamous cell carcinoma. Recently, Mecelal-Bojas and Sauna reported the association of a lipoma and a carcinoma and they stated that their case was the fifth to be reported in the literature.

In addition to the so-called "overlying" type of coexisting benign and malignant tumors, there may be another type in which the benign tumor is adjacent to the malignant one. Schirmer's case and the authors' fall into this category. The benign tumor exists independently of the malignant lesion. Although the diagnosis of carcinoma of the esophagus is not difficult in most cases, a benign tumor in the dilated proximal portion of the esophagus may not show a characteristic filling defect in the esogram and so may be missed if an esophagogram has not been performed. Esophagotomy is the treatment of choice both for malignant and benign lesions.