Hemoptysis in a 65-Year-Old Man
(See page 1379 for Photo Quiz)

Figure 1. Left, Posteroanterior chest radiograph obtained before the hemoptysis event. Right posterior 5th rib resection and right apical and basilar pleural thickening are related to prior thoracotomy. Scattered bilateral calcified nodular opacities are visible. Right, Radiograph obtained 5 months later. Note that the large calcified lesion visible in the radiograph at left (arrow) has disappeared.

Diagnosis: lithoptysis following broncholithiasis secondary to tuberculosis.

The large calcified area seen in the right upper chest on the radiograph obtained before the onset of hemoptysis (figure 1, left) is absent from the radiograph obtained 5 months later (figure 1, right). The hemoptysis was likely related to erosion of a broncholith into the airway. The patient expectorated a large broncholith as well as several smaller pieces; an example is shown in figure 2.

Histoplasmosis and tuberculosis are the predominant causes of broncholithiasis [1, 2]. Cough, hemoptysis, and obstructive pneumonia are among the most common presentations. Stones originate from the calcified peribronchial lymph nodes that then erode into the tracheobronchial tree. Analysis of the composition of a broncholith reveals approximately 90% calcium

Figure 2. Gross photomicrograph of a portion of the expectorated broncholith. The ruler units are centimeters.
phosphate and 10% calcium carbonate [3]. Rare complications can include development of a fistula between the esophagus and respiratory tract [1].

**References**