This 42-year-old man was first admitted in December, 1965, with symptoms of acute tracheobronchitis. A chest roentgenogram was interpreted as normal.

He recovered promptly but was readmitted in February, 1966, because tubercle bacilli were isolated from sputum cultures made on the first admission.

On July 20, he developed a harsh cough and hemoptysis and felt quite ill.
Diagnosis: Broncholithiasis

Figure 1 shows clear lung fields and a calcified node in the medial portion of the right hilum. Figure 2, made three weeks later, shows disappearance of this calcific shadow.

Following admission, the patient expectorated gritty chalky material from time to time (Fig. 3). During the early hours of July 21, he brought up a larger stone with immediate and great relief of his symptoms. Bronchoscopic examination showed a partly calcified mass protruding on the medial side of the right main bronchus; this was removed with biopsy forceps. From then on, he remained perfectly well and continued taking PAS and isoniazid. A follow-up bronchoscopy in September, 1966, showed a healed area at the former site of the broncholith.

Expectoration of stones has been known for centuries, and interested even Aristotle. In young adults, the most common cause is tuberculous lymph nodes, although nodal involvement by histoplasmosis has also been implicated. The primary parenchymatous lesion usually remains small and insignificant and the erosion of the bronchus is caused by the glandular component. The erosion does not always produce symptoms. The first evidence of bronchial penetration may be the development of a positive sputum, as in this case. Elucidation of the problem is helped by laminography and grid films, which demonstrate the calcified lymph node and its relationship to a bronchus. Bronchoscopy is a valuable aid to diagnosis. Treatment in the tuberculous cases is conservative, with antituberculosis drugs.

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References

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