A 60-Year-Old Man with Fever and a Lung Mass
(See pages 899–900 for the Photo Quiz)

Figure 1. Chest radiograph emphasizing the bulging of the interlobar fissure (arrows)

Diagnosis: Acute Friedländer pneumonia and sepsis due to Klebsiella pneumoniae.

The ultrasound-guided biopsy sample taken from the mass (figure 1) showed an acute inflammatory exudate. Gram staining revealed large numbers of gram-negative rods (figure 2). This finding, together with the rapid expansion of the infiltrate in the left lung field, made the diagnosis of a tumor unlikely. HIV infection was ruled out.

Despite intensive antibiotic and supportive treatment, multiorgan failure supervened, and the patient died <20 h after admission to the hospital. K. pneumoniae was recovered from blood cultures and lung tissue.

In 1882, Friedländer first reported the cultivation of “Friedländer’s bacillus,” known today as K. pneumoniae, from the lungs of patients who had died of pneumonia [1]. He described a large gram-negative encapsulated bacterium and considered it to be the etiologic agent of most cases of community-acquired pneumonia, a hypothesis that was later disproved when it was shown that only 1% of cases of community-acquired pneumonia are caused by K. pneumoniae [2, 3]. Most reports regarding Friedländer pneumonia, published in the 1940s and 1950s, show a predominance of the disease among middle-aged males, with alcohol abuse as the major risk factor [4].

The typical clinical presentation of acute Friedländer pneumonia is a fulminating lobar pneumonia associated with a high mortality rate. Bloody tenacious sputum, once thought to be characteristic of the disease, is present in only ~50% of cases [4], and leukopenia is often noted. Friedländer pneumonia has a typical radiological appearance: a dense, homogeneous infiltration that may resemble a mass lesion, with bulging of the interlobar fissure. In various studies, a predilection for upper lobe involvement has been noted [5]. The bulging fissure that was evident radiologically in our patient was highly suggestive of this condition (figure 1). This radiological appearance, combined with the clinical findings, should suggest the diagnosis.

Before the antibiotic era, the mortality rate associated with this disease was 80%–90% [2, 6], but even after the introduction of streptomycin and chloramphenicol, the associated mortality rate continued to be high; up to one-third of patients die, according to one report [3].

Although K. pneumoniae is the etiologic agent of true community-acquired pneumonia in only 1% of cases [7], this un-
usual case demonstrates that Friedländer pneumonia, with its implications for choice of treatment, should still be considered in the differential diagnosis when the typical radiological and clinical findings are present.

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Figure 2. Gram stain prepared from the lung biopsy sample, showing pus cells and large numbers of gram-negative rods, some of which are encapsulated (arrows).