Multiple Bilateral Cavities*

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A 30-year-old man was brought to the hospital with high fever, headache, and dry cough. Clinical examination revealed a pustular eruption on the right side of the forehead. The respiratory system was normal. There was leukocytosis with polymorphonuclear cells predominating. A PA roentgenogram of the chest was obtained (Fig 1).

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Figure 1
Diagnosis: Metastatic Staphylococcal Lung Abscesses

The roentgenogram (Fig 1) shows multiple, well-defined, rounded densities with central cavitation. Several of the lesions contain air-fluid levels, suggestive of a hematogenous origin.

The patient was not producing sputum, but laryngeal swab cultures repeatedly grew coagulase positive, penicillin-resistant Staphylococcus aureus and Streptococcus viridans. Culture of bronchoscopic aspirate gave a pure growth of Staphylococcus aureus. Blood culture revealed the same organism. It was sensitive only to streptomycin and gentamycin. The patient showed marked improvement with streptomycin and gentamycin therapy on a film made one month later (Fig 2).

In this patient, the positive blood culture and roentgenogram indicated hematogenous spread, probably from the pustular lesions on the right forehead. An interesting feature in this patient was that despite the roentgen demonstration of many cavities with air-fluid levels, the chest was clinically silent and there was no expectoration.

This roentgen appearance can be easily mistaken for pulmonary tuberculosis, cavitated metastatic carcinoma, fungal infection, and Wegener's granulomatosis. Staphylococcal sepsis in the presence of lung abscess is not common, although it may occur in the course of an influenza epidemic. A high mortality rate has been reported. Early diagnosis and proper and adequate management is necessary to avert a fatal outcome.

References