Pulmonary Cryptococcosis Presenting with Multiple Pulmonary Nodules

To the Editor:

Pulmonary cryptococcosis presenting as multiple, bilateral pulmonary nodules is rare.1 Recently, a case of pulmonary cryptococcosis in which one granuloma was found in each lung has been reported.2 We have recently encountered a patient with multiple, bilateral pulmonary nodules due to Cryptococcus neoformans.

CASE REPORT

A 50-year-old white man was admitted to the hospital for evaluation of abnormal findings on chest film. Three weeks prior to admission, he developed left pleuritic chest pain associated with some cough. No fever was noted at that time. Radiologic evaluation disclosed multiple, bilateral pulmonary nodules, some of which were suspected to be cavitory in nature. The patient had a seven-year history of regional ileitis, and a right hemicolectomy and distal ileectomy had been performed. His medications upon admission to the hospital were prednisone, 17.5 mg every other day, salicylazo sulfapyridine (Azulidine) 2 gm daily. The patient was a nonsmoker and nondrinker. He had no history of previous pulmonary disease. He operated a fruit farm and actively engaged in farm duties, which included tilling soil, picking fruits, and spraying trees. He denied any weight loss, shortness of breath, hemoptysis, pedal edema, paroxysmal nocturnal dyspnea, or orthopnea.

Physical examination revealed the patient to be in no acute distress. Except for a surgical scar in his abdomen, physical examination was normal. Chest x-ray films obtained at admission and full chest tomograms showed multiple, bilateral pulmonary nodules, several of which were cavitary in nature (Fig 1).

Routine laboratory investigations failed to disclose any abnormalities. An intermediate PPD test was negative at 48 and 72 hours. Fiberoptic bronchoscopy was performed, and chronic, inflammatory tissue was obtained. Bronchoscopic washings grew Cryptococcus neoformans. The patient was referred for open lung biopsy. The biopsy specimen taken from his left lung were compatible with Cryptococcus neoformans, both histologically and on culture. A lumbar culture was then performed, and spinal fluid analysis was normal. Although some reports have suggested that isolated Cryptococcus need not be treated, because of this patient’s chronic and inflammatory bowel disease and his long history of oral steroid therapy, he was started on intravenous amphotericin B with a maximum dose of 5 mg/kg/day. A total of 800 mg was given over a period of four weeks. Progress was monitored by serial chest x-ray examinations and cryptococcal antigen titers. The initial titer prior to treatment was positive in a dilution of 1:32. This reduced to 1:4 following 26 days of therapy at which time treatment was discontinued because of bone marrow suppression.

The patient was discharged from the hospital. Chest films taken six weeks following discharge showed substantial resolution of the pulmonary nodules. The cryptococcal antigen titer at that time was 1:1, and bone marrow function had returned to normal. There has been no recurrence of disease after eight months.

DISCUSSION

Pulmonary cryptococcosis may be seen in both normal and immunosuppressed hosts. Roentgenographic patterns vary widely from linear shadows to well-defined nodular lesions.

Fisher and Armstrong3 described the use of cryptococcal antigen titers in establishing the diagnosis of cryptococcal pneumonia in two patients. The initial serum titer in this patient, drawn prior to open biopsy, was not available at the time of histologic diagnosis. The use of serial titers appeared to be helpful in monitoring his response to treatment.

Multiple, bilateral pulmonary nodules do not rule out the diagnosis of pulmonary cryptococcosis. Serum cryptococcal antigen titers may be helpful in establishing the diagnosis, as well as in monitoring response to treatment.

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REFERENCES