The patient was a 23-year-old single Korean student. Multiple gastrointestinal parasites had been detected upon her arrival in the United States in 1955. In 1959, an infiltrate was noted in the right upper lung field. This gradually increased in size over a six-month period and then cavitated. Calcified cervical lymph nodes were present. Productive cough, weight loss, and easy fatigability were noted. A diagnosis of thyrotoxicosis was established and, under appropriate management, was fairly well-controlled. There was a family history of tuberculosis. The tuberculin skin test was strongly positive, but fungus skin tests were negative, as were sputum studies for fungi and tubercle bacilli. A presumptive diagnosis of pulmonary tuberculosis was made. She was admitted to the City of Hope Medical Center on February 5, 1960, at which time the films illustrated in Figs. 1 and 2 were obtained.

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Answer: Paragonimus Infestation of the Lung

The postero-anterior roentgenogram and laminagram (Figs. 1 and 2) show a cavitaded infiltrate in the right upper lobe. The remainder of the lung fields are clear.

Treatment for tuberculosis was started. Intensive sputum studies were undertaken and six weeks after admission, the ova of Paragonimus westermani were found (Fig. 3). This observation was confirmed on many occasions. It was noted that only rusty-colored sputum showed the ova. At no time was Mycobacterium tuberculosis cultured. No other site of Paragonimus involvement was detected. A course of chloroquine therapy was given without demonstrable effect. Isoniazid was administered for one year because of the family history and evidence of old tuberculosis in the neck.

Paragonimiasis is endemic in the Far East and is acquired by ingesting raw or improperly cooked, infected, fresh-water crabs. Systemic symptoms appear 8 to 15 weeks after exposure, but may be mild or absent. The fluke has a definite predilection for the lungs, although other organs are occasionally involved, especially the brain. Pulmonary involvement produces cough intermittently productive of rusty sputum due to the presence of blood and ova. Other laboratory findings are of little value. Temporary symptomatic benefit has been occasionally attributed to chloroquine. The natural history of paragonimiasis is variable and depends on the life span of the fluke, which is estimated to be 10 to 20 years. Death may result from the disease or its complications.

The present case was of special interest because of the long period between exposure to the etiologic vector and the first recognized manifestations of the disease. Sputum studies performed recently continue to be positive for Paragonimus westermani ova. The x-ray films are unchanged and she remains essentially asymptomatic.

References


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