An African-Born Man with Chronic Recurrent Hemoptysis

(See pages 1319–20 for the Answer to the Photo Quiz)

A 46-year-old man presented with an 8-year history of recurrent hemoptysis. He was born in Eyamoyong, Equitorial Guinea, which is a small village on the banks of the Miong River, and he had lived there his entire life. He had been in good health until 8 years before presentation, at which time he began to experience recurrent episodes of productive cough and hemoptysis without fever, malaise, or other accompanying symptoms. In November 2006, he moved to Spain and was referred to the Bellvitge University Hospital (Barcelona, Spain). His medical history was unremarkable except for an episode of malaria that had been successfully treated 4 months earlier. He reported eating undercooked crabs that he had caught in the Miong River. The only notable finding of a physical examination was decreased breath sounds at the base of the right lung. Laboratory tests revealed a hemoglobin level of 10.3 g/dL, middle corpuscular volume of 75 fL, a WBC count of 16,900 cells/mm³ (with 40% eosinophils), and an erythrocyte sedimentation rate of 112 mm during the first hour. The results of liver and renal function tests were normal. Serological testing for *Echinococcus* species (using a hemagglutination test) yielded negative results. ELISA and Western blot blood tests for HIV antibodies had positive results, with an HIV RNA level of 550 copies/mL as determined by real-time PCR, and the patient had a CD4 cell count of 1400 cells/mm³ (CD4 cell percentage, 28%). A chest radiograph revealed right pleural reaction with minimal effusion, and a CT was performed (figure 1). Six sputum smears were negative for acid-fast bacilli and helminthic eggs. Bronchoscopic examination did not reveal endobronchial lesions, and testing of bronchoalveolar lavage fluid did not yield acid-fast bacilli, malignant cells, or eggs. The findings of a rectal examination were normal, with no fecal occult blood and no parasites or eggs. Finally, a right lung thoracotomy with de- cortication and segmentectomy was performed. A musculike material replacing visceral pleura and a bleeding, pearl-colored cavitation at the basal pyramid were found. Parasitological examination of the tissue specimen is shown in figure 2. Pathological examination was also performed.

What is your diagnosis?