CHEST Postgraduate Education Corner
PULMONARY, CRITICAL CARE, AND SLEEP PEARLS

A 57-Year-Old Woman With Persistent Cough and Pulmonary Nodules

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A 57-year-old white woman presented to our pulmonary clinic with a 4-month history of a chronic nonproductive cough. The cough was persistent and severe. She noted shortness of breath and diffuse chest pain that occurred only during coughing. She previously used an angiotensin-converting enzyme inhibitor, but it had been stopped 2 months prior. She also reported fatigue, night sweats, and a 9 kg (20-lb) weight loss. She was a lifelong nonsmoker and denied any postnasal drip, gastroesophageal reflux symptoms, or history of asthma. She tried treatment with a proton pump inhibitor, azithromycin, benzonatate, and albuterol without significant relief. Results from a previous direct flexible laryngoscopy procedure were unremarkable.

Physical Examination Findings

Physical examination revealed the following vital signs: BP, 100/60 mm Hg; pulse rate, 90 beats/min; respiration rate, 18 breaths/min; and no fever. Oxygen saturation was 98% on room air. The rest of the physical examination was unremarkable except for a persistent cough throughout the visit. The patient's lungs were clear to auscultation bilaterally.

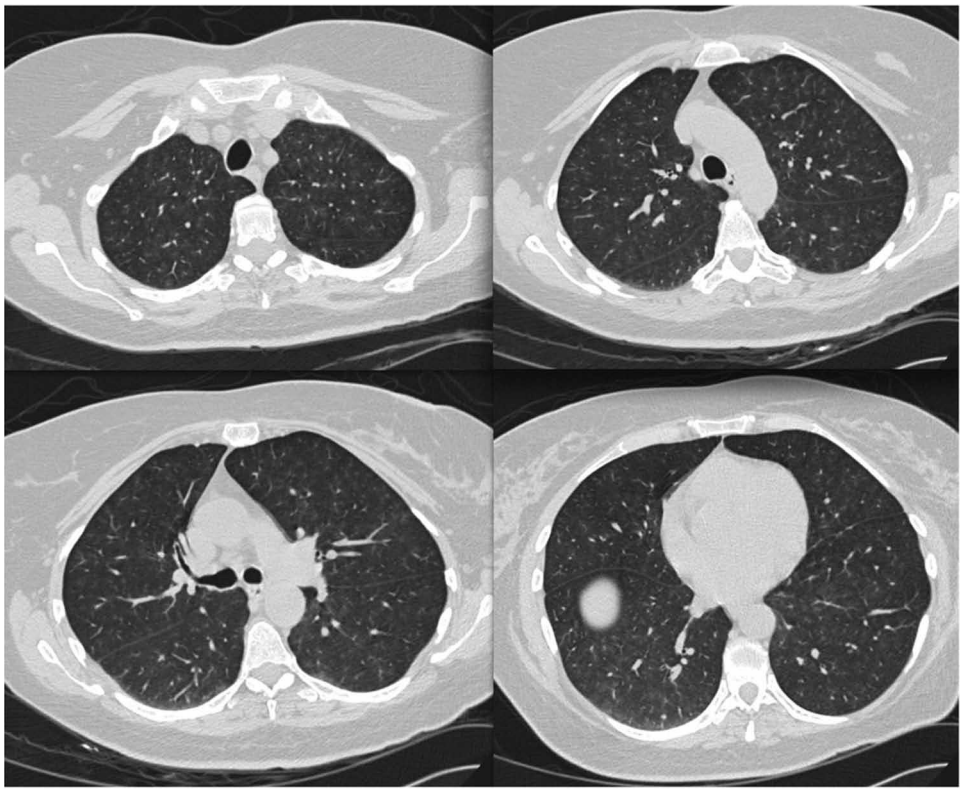

Figure 1. Chest CT scans showing diffuse ill-defined centrilobular nodularity.

Diagnostic Studies

Pulmonary function test and chest radiograph findings were normal. A chest CT scan revealed diffuse, ill-defined centrilobular nodularity (Fig 1) as well as splenomegaly. Fungal serologic test results for coccidioides, *Cryptococcus*, and histoplasma were negative. The patient underwent fiber-optic bronchoscopy with BAL and transbronchial biopsy of the right middle and right lower lobes. BAL cultures were negative for pathogens. The transbronchial biopsy specimens revealed a focal increase in cellularity, with cells filling the alveolar spaces on a low-power view. Higher magnification showed infiltrating neoplastic cells, and immunohistochemical stains were positive for leukocyte common antigen (CD45) and CD20.

What is the diagnosis?

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