CHEST

A 65-Year-Old Groundskeeper With High Fever, Pulmonary Nodules, and Thoracic Lymphadenopathy

Clayton L. Foster, MD; Jessica Badlam, MD; Mary Ann De Groote, MD; and Edward D. Chan, MD

A 65-year-old man with treated latent tuberculous infection presented with 1 week of fevers (up to 39.6°C), chills, headache, lightheadedness, and malaise. He reported a chronic, nonproductive cough without hemoptysis but denied other localizing symptoms, sick contacts, or recent travel. He lived in an urban area in eastern Colorado and owned one healthy dog but otherwise denied known animal exposures. He was a retired oil driller who had worked in southern Arizona, New Mexico, and northern Mexico (Sonora region). Other travel included 3 years in the early 1970s working as a military aircraft mechanic in Vietnam, Laos, and Thailand. Six weeks prior to admission, he began work as a groundskeeper on a golf course that had experienced recent flooding, using a riding mower and exposing himself to airborne dust and organic debris. He smoked a pipe daily for 30 years but quit 2 months prior to presentation, although he continued to smoke marijuana weekly. He denied intravenous drug use.

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Physical Examination Findings

On examination, his temperature was 38.7°C; pulse, 74 beats/min; respiratory rate, 16 breaths/min; and blood pressure, 113/79 mm Hg. Examination revealed a diaphoretic, ill-appearing man with otherwise unremarkable findings.

Diagnostic Studies

The complete blood count was notable for a white blood cell count of 13,300/μL, with 77% neutrophils, 2% bands, 10% lymphocytes, and 11% monocytes. The serum sodium level was 131 mM, but other electrolytes and kidney and liver function test results were all within normal limits. A CT scan of the chest showed multiple bilateral pulmonary nodules with lower lung predominance (Fig 1A), as well as bilateral mediastinal and hilar lymphadenopathy (Fig 1B).

AFFILIATIONS: From the Division of Infectious Diseases (Dr Foster) and Division of Pulmonary Sciences and Critical Care Medicine (Drs Badlam and Chan), University of Colorado Anschutz Medical Campus, Aurora, CO; the Department of Microbiology, Immunology, and Pathology (Dr De Groote), Colorado State University, Fort Collins, CO; Department of Medicine and Academic Affairs (Dr Chan), National Jewish Health, Denver, CO; and Department of Medicine (Dr Chan), Denver Veterans Affairs Medical Center, Denver, CO.

CORRESPONDENCE TO: Edward D. Chan, MD, D509, Neustadt Building, National Jewish Health, 1400 Jackson St, Denver, CO 80206; e-mail: chane@njhealth.org

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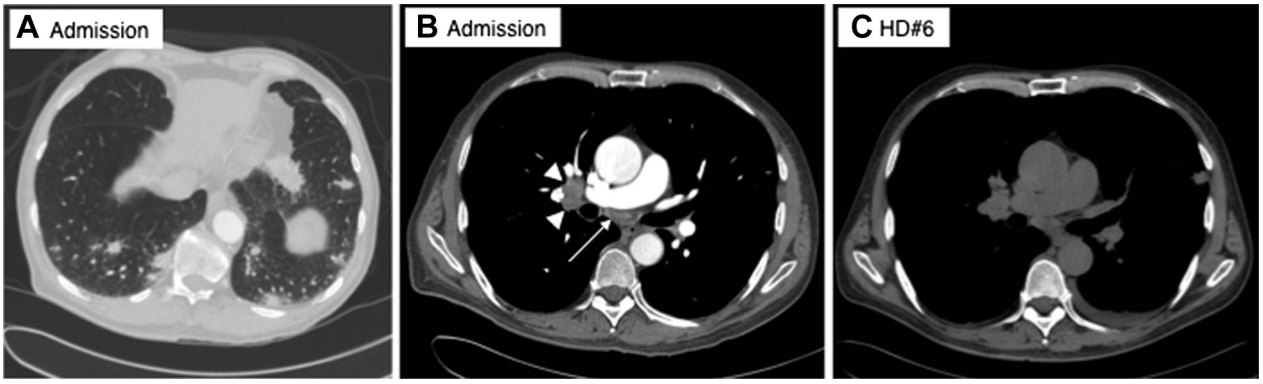

Figure 1 – *Chest CT scans. A, Axial chest CT image on admission shows bilateral nodular opacities in the lower lobes. B, Mediastinal window of the admission chest CT scan with contrast shows prominent right hilar (arrowheads) and modest mediastinal (arrow) lymphadenopathy. Less extensive hilar lymphadenopathy (not visible in current image) was also present on the left. C, Mediastinal window of a chest CT scan on hospital day 6 revealed a new, small pleural effusion on the left, with unchanged lymphadenopathy and, also, worsening of the bilateral nodular opacities (not seen in this image).*

What is the diagnosis?