CHEST

A 42-Year-Old Woman With Abnormal Chest CT Scan and Chylous Ascites

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A 42-year-old white woman presented to the pulmonary clinic for evaluation of abnormal chest imaging. Twenty years prior to presentation, she was noted to have an abnormal chest radiograph during a routine preemployment evaluation. A subsequent bronchoscopy was nondiagnostic. She was followed up with annual imaging, which demonstrated little or no progression of her disease. She remained symptom free throughout this period. A year before her visit to the pulmonary clinic, she developed abdominal discomfort and was found to have ascites. Subsequently, she underwent three paracenteses with analysis revealing chylous fluid. She was a nonsmoker without a history of exposures or travel. CHEST 2016; 149(1):e25–e28

Physical Examination Findings

On examination, the patient appeared well nourished, without any distress. She was afebrile (36.7°C) with a heart rate of 72/min, BP of 130/70 mm Hg, and respiratory rate of 18/min. Her oxygen saturation was 100% at room air. There was no peripheral lymphadenopathy. Chest auscultation demonstrated decreased air entry at both lung bases but no adventitious sounds. Her abdomen was soft, nontender, and mildly distended because of ascites but without organomegaly. No clubbing or pedal edema was noted.

Diagnostic Studies

The laboratory studies showed normal blood count, basic metabolic panel, and liver enzymes. Her collagen vascular disease workup was negative. A CT scan of the chest (Figs 1, 2) revealed extensive septal and peribronchovascular thickening, upper-lobe predominant bilateral bronchocentric ground-glass opacities, cystic changes in the upper lobes, and small pleural effusions. These imaging findings showed minimal change when compared with studies performed during the 2 previous years. An echocardiogram and right-sided heart catheterization ruled out the presence of any cardiac

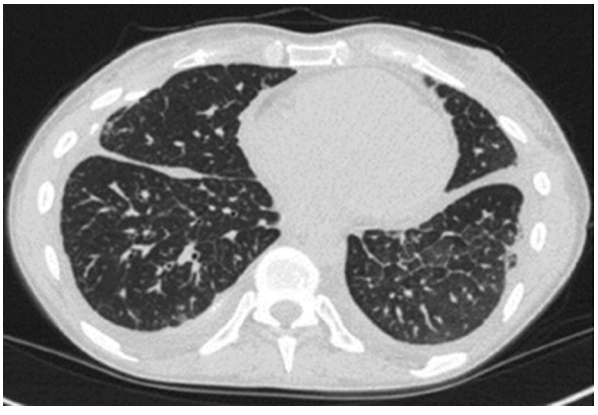

Figure 1 – *CT scan showing bilateral interlobular septal thickening.*

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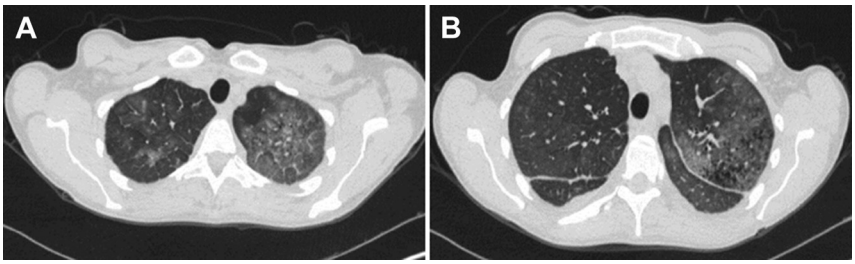

Figure 2 – *A, B, CT scans showing peribronchovascular ground-glass opacities and cystic changes.*

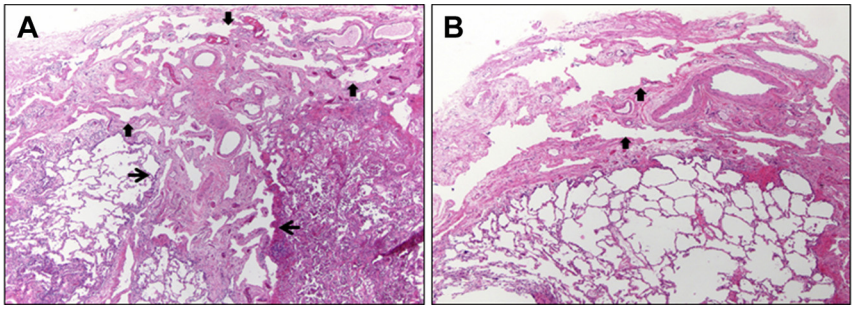

Figure 3 – *A, B, Low-power (hematoxylin and eosin, original magnification × 2) (A)) and intermediate power (hematoxylin and eosin, original magnification × 4) (B) Views of the lung biopsy specimen showing dilated lymphatic channels in the thickened pleura (wide arrows) and interlobular septa (thin arrows).*

dysfunction, valvular heart disease, or pulmonary hypertension. Her spirometry suggested restriction but with normal diffusion capacity. A bronchoscopy was performed, and the BAL cell differential was 12% lymphocytes, 71% macrophages, and 12% neutrophils. Transbronchial biopsies were nondiagnostic. Subsequently, the patient underwent surgical lung biopsy with histology as shown in Figures 3 and 4.

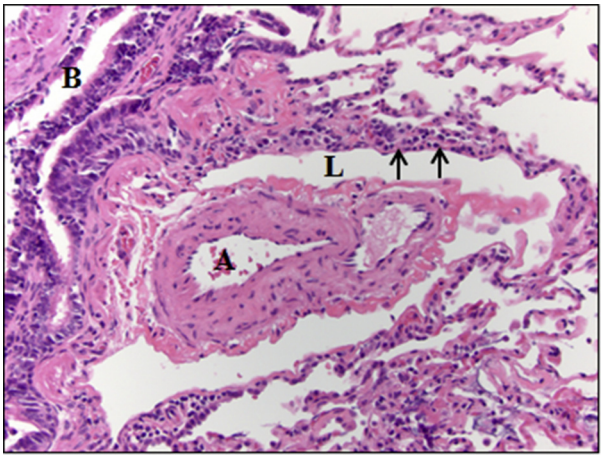

Figure 4 – *Hematoxylin and eosin, 10 × magnification, showing dilated lymphatics (L) around a bronchovascular bundle with artery (A) and bronchiole (B). The lymphatics are lined by flat endothelial cells (arrows).*

What is the diagnosis?