

IMAGES IN CLINICAL MEDICINE

Pulmonary Alveolar Proteinosis



A 45-YEAR-OLD MALE FARMER PRESENTED WITH A 2-MONTH HISTORY OF increasing breathlessness and dry cough. His arterial oxygen saturation was 82% while he was breathing ambient air, and his chest radiograph showed bilateral alveolar and interstitial opacities. High-resolution computed tomography (CT) of the chest showed a bilateral ground-glass opacity with interlobular septal thickening, creating a mosaic, or “crazy paving,” pattern in both lung fields. Pulmonary-function testing showed a moderately restrictive ventilatory defect, with a forced vital capacity of 54% and a diffusion capacity of 37% of the predicted values. Transbronchial lung biopsy showed alveolar filling with amorphous, granular, eosinophilic, periodic acid–Schiff-positive material and preserved alveolar septal architecture, leading to a diagnosis of pulmonary alveolar proteinosis. Bilateral lung lavage was performed, first on the left side (with 12 liters of saline) and then on the right side (with 16 liters of saline), with the patient receiving general anesthesia and single-lung ventilation. The lavage fluid was initially turbid with sediment but gradually cleared. After the procedure, the symptoms diminished, with oxygen saturation improving to 94% while the patient was breathing ambient air. A follow-up radiograph and high-resolution CT scan of the chest and a pulmonary-function test also showed improvement, with forced vital capacity and diffusion capacity increasing to 70% and 48% of the predicted values, respectively. The patient was asymptomatic at discharge from the hospital 2 weeks later and remained well at follow-up 3 months later.

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Zarir F. Udwadia, M.D.
Sushil Jain, M.D.

P.D. Hinduja National Hospital
Mumbai 400016, India
zfu@hindujahospital.com