

Mineral Oil: The Occult Cause of Critical Illness

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Case Presentation

A 59 year-old lady with a history of diabetes, hypertension, and coronary artery disease presented to the emergency department complaining of progressive shortness of breath over a 6 month period. On initial examination she was found to be hypoxemic with a PaO₂ of 50 mmHg. A chest radiograph left lower lobe consolidation (**Figure 1**). The patient was given broad-spectrum antibiotics and admitted to the intensive care unit (ICU). In the ICU she remained on antibiotics and bronchodilator therapy was started. Despite these interventions, she showed no evidence of improvement over next 48 hours.

Additional questioning revealed that the patient had a history of chronic constipation for which she had been using mineral oil as a laxative over the last decade. A computed tomography (CT) scan of chest revealed a large area of consolidation extending from the left hilum into the left lower lobe with satellite nodules in the left lower lobe (**Figure 2**). The patient underwent bronchoscopy with bronchoalveolar lavage, which showed mucin with intermixed degenerated epithelial elements and focal foamy histiocytes. Transbronchial biopsies of the region yielded moderate patchy to diffuse infiltrate of multi-vacuolated histiocytes, with occasional foreign body giant cells. The Sudan black stain was positive. These findings corroborated a suspicion of lipid pneumonia. Antibiotics were stopped at that time. A follow up chest x-ray showed improvement over 3 months with resolution of infiltrate over 6 months.

Lipoid pneumonia occurs mainly in children and the elderly, who are at risk for aspiration. Because of its high viscosity, mineral oil depresses the cough reflexes, facilitating aspiration even in normal persons, and patients with swallowing dysfunction are at an increased risk. This condition can be underdiagnosed as mineral oil is often not considered important by the patient to be listed with the medications which they are taking.



FIGURE 1. CHEST RADIOGRAPH DEMONSTRATING LEFT LOWER LOBE CONSOLIDATION

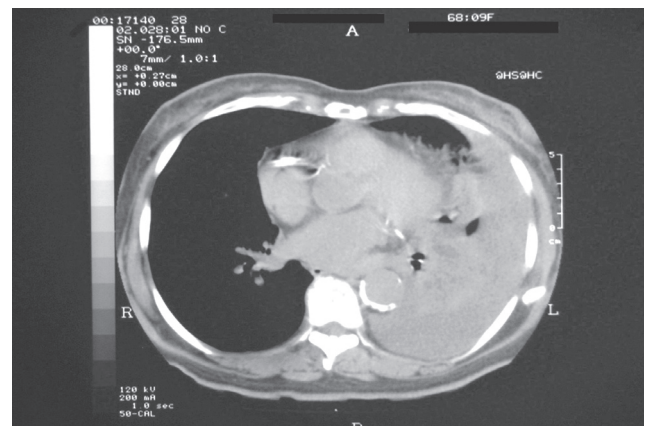


FIGURE 2. CT SCAN OF THE CHEST REVEALING LEFT LOWER LOBE CONSOLIDATION AND SMALL PLEURAL EFFUSION

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