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

A 67-Year-Old Woman With Asthma, Word Finding Difficulty, and an Abnormal Chest Radiograph

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CHEST 2013; 143(3):862–865

A 67-year-old woman presented to the ED of a tertiary hospital with sudden onset of difficulty expressing words, associated with a frontal headache. She reported general malaise, muscle weakness, and a persistent abnormal sensation in her legs in the preceding couple of weeks. These symptoms presented on a background of refractory asthma, which had been diagnosed in early childhood. She had been on maintenance therapy of 10 mg prednisolone daily (which she titrated based on her exacerbations), in addition to fluticasone/salmeterol 250 μg/50 μg metered-dose inhaler, two puffs bid. There was no history of rhinosinusitis or nasal polyposis. Two years prior, she had an episode of amaurosis fugax, which was treated as temporal arteritis (no histology was undertaken), with oral steroids.

Physical Examination Findings

On examination, the patient's heart rate was 95 beats/min, respiratory rate was 28 breaths/min, and BP was 130/77 mm Hg. Oxygen saturation was 94% on 8 L/min oxygen. Chest examination indicated increased work of breathing, widespread wheeze, and coarse crackles. Cardiovascular and abdominal examinations were normal. CNS examination identified receptive and expressive dysphasia, dyscalculia, and loss of right and left discrimination. Peripheral nervous system examination revealed peripheral sensory loss in stocking distribution.

Diagnostic Studies

Full blood count showed a normal hemoglobin level, WBC count of 18.5×10^9/L (normal range, 4-11 $\times 10^9$/L), slightly elevated neutrophil count of 9.92×10^9/L (normal range, 1.8-7.5 $\times 10^9$/L), and markedly elevated eosinophil count of 5.92×10^9/L (normal range, 0.02- 0.50 $\times 10^9$/L). C-reactive protein level was elevated at 120. Renal function and liver function test results were normal. Urine microscopy did not reveal any active sediments. An autoantibody screen showed negative antineutrophil cytoplasmic antibody (ANCA), weakly positive antinuclear antibody, and negative extractable nuclear antigen results.

The chest radiograph (Fig 1) showed features of alveolar shadowing with areas of dense consolidation.

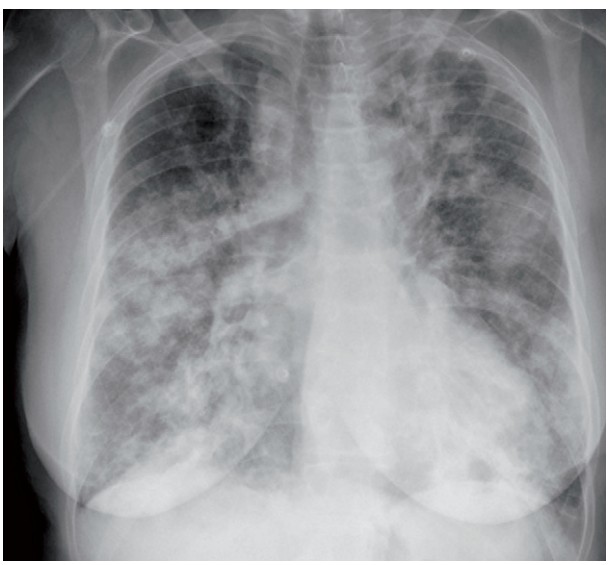

FIGURE 1. Anteroposterior chest radiograph taken at the time of presentation.

Manuscript received May 2, 2012; revision accepted July 6, 2012.
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DOI: 10.1378/chest.12-1130

What is the diagnosis?

FIGURE 2. CT scan of the brain.

A CT scan of the brain (Fig 2) showed features consistent with acute cerebral infarct involving the left middle cerebral artery. A CT scan of the thorax (Fig 3) confirmed the patchy alveolar shadowing and consolidation. The patient subsequently underwent bronchoscopy and transbronchial biopsy.

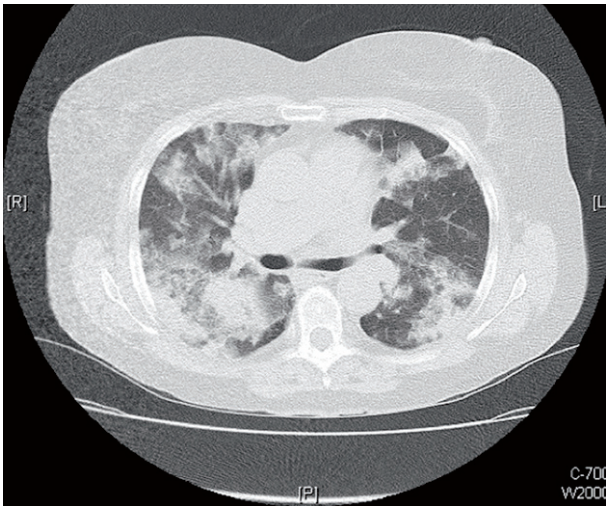

FIGURE 3. CT scan of the thorax.