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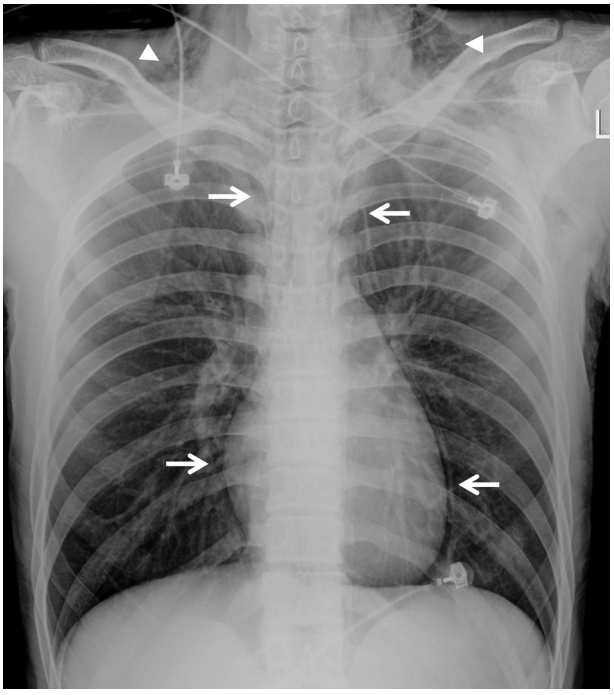

Figure 1. Chest radiograph showing pneumomediastinum (arrows) and subcutaneous emphysema at the bilateral lower neck (arrowheads).

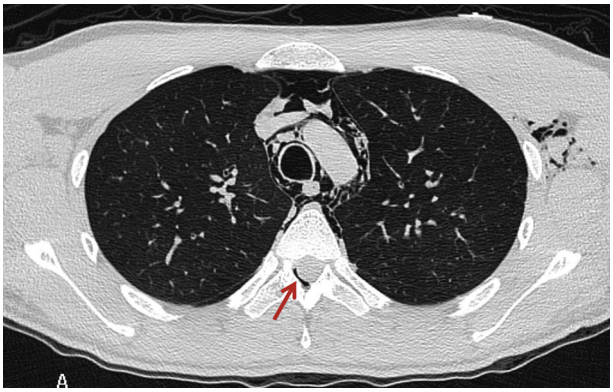

Figure 2. CT of the chest, demonstrating air in the spinal canal (arrow).

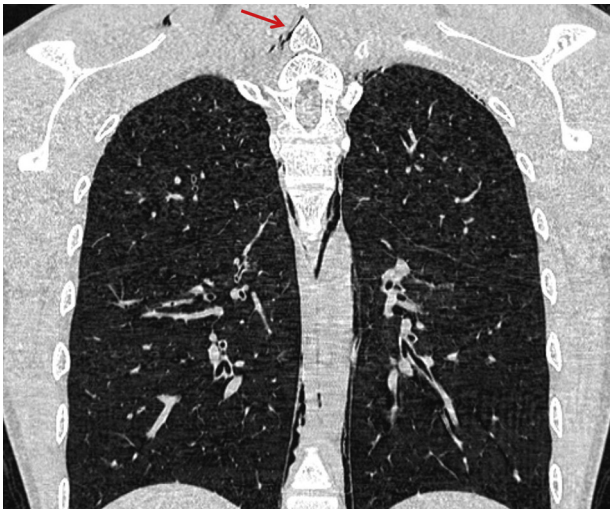

Figure 3. CT of the chest, revealing air in a right intervertebral foramen at the cervical level (arrow).

[Ann Emerg Med. 2019;73:e1-e2.]

An 18-year-old man presented to the emergency department with sudden onset of shortness of breath and chest pain. The patient had caught a common cold 4 days ago and since then had developed night cough. He was a nonsmoker. He did not have any history of asthma or trauma to his chest. He had tachycardia (133 beats/min) and tachypnea (25 breaths/min). Oxygen saturation was 99% on room air. On physical examination, his neck appeared to be swollen, with crepitus on skin palpation. Chest radiograph and computed tomography (CT) were obtained.

For the diagnosis and teaching points, see page e2.
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(continued from p. e1)

DIAGNOSIS:

Pneumorrhachis associated with spontaneous pneumothorax. Chest radiograph (Figure 1) showed pneumomediastinum and subcutaneous emphysema at the bilateral lower neck. CT of the chest revealed air in the spinal canal (Figure 2) and intervertebral foramen (Figure 3).

Pneumorrhachis is characterized by air in the spinal canal. It is a rare entity, mainly resulting from an abrupt increase in intrathoracic pressure, caused by cough, asthma attack, and forceful vomiting in a healthy young adult.[1] It is usually accompanied by spontaneous pneumomediastinum because there is no fascial barrier between the posterior mediastinum and epidural space.[2] Most patients with pneumorrhachis related to spontaneous pneumomediastinum have no neurologic symptoms[3]; conservative treatments are often adequate for this condition because it is self-limited.[4] However, for pneumorrhachis of specific causes such as esophageal rupture, infection, and open trauma of the spine, more aggressive treatments should be considered.

Our patient received conservative therapy and was discharged uneventfully.

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