Pneumorrhachis with Spontaneous Pneumomediastinum and Subcutaneous Emphysema

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Picture 1. Chest computed tomography scan showing air collection in the mediastinum.

Picture 2. Chest computed tomography scan showing air within the spinal canal.

An 18-year-old male student was admitted to our hospital with complaints of a sudden onset of dyspnea and cough with numbness of double cruris for the previous 2 days. His vital signs were stable. Physical examination found crepitus on his right shoulder and the neck. The blood gas analysis was normal. A chest radiograph showed subcutaneous emphysema and pneumomediastinum. A computed tomographic scan of the chest was performed for further evaluation, which revealed air collection in the mediastinum (Picture 1) and air within the spinal canal (Picture 2). Thus, the patient was diagnosed as pneumorrhachis with spontaneous pneumomediastinum and subcutaneous emphysema. The patient was given the antitussive drug dextromethorphan (45 mg per day) to control the cough. The cough and the numbness of the cruris were gradually relieved. A repeat computed to-

mographic scan of the chest after 7 days revealed complete resolution of pneumomediastinum as well as pneumorrhachis.

Spontaneous pneumomediastinum is an uncommon entity primarily affecting young adults and children (1). Pneumorrhachis is a rare complication of spontaneous pneumomediastinum (2). There have been only a few case reports of pneumorrhachis associated with spontaneous pneumomediastinum (3, 4). Epidural space pneumorrhachis with pneumomediastinum generally occurs by the following mechanism (5): air may infiltrate along fascial planes from the posterior mediastinum, through the neural foramina, and into the epidural space. Similar to the present case, two case reports showing an association with violent coughing have been reported (6, 7).

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