Pneumothorax in a Single Lung Patient

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An 80-year old man referred to the emergency department for chest pain and dyspnea on exertion reported a medical history of left pulmonary tuberculosis in babyhood, treated by therapeutic pneumothorax. This was commonly used to treat tuberculosis prior to the development of antitycobacterial agents. Successful therapeutic pneumothorax resulted in fibrosis and encapsulation of the diseased lung and containment of the infection. Forty-eight hours prior to admission, he underwent chest trauma caused by a staircase fall. Physical examination revealed extensive subcutaneous emphysema of the chest, neck and arms. Thoracic computed tomography unexpectedly revealed a single right lung expanded through the entire thorax cavity, a partial anterior pneumothorax (Figure), a fracture of the ninth right rib and extensive soft tissue emphysema. Left lung was hypoplastic in posterior position. As a consequence, mediastinum was fully shifted in left posterior position. Pneumothoraces due to trauma usually require the placement of a chest tube. In this case of limited anterior pneumothorax, insertion of a chest tube was not indicated, and the patient spontaneously recovered in a few days.

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