

Medical Image of the Week: Pneumomediastinum

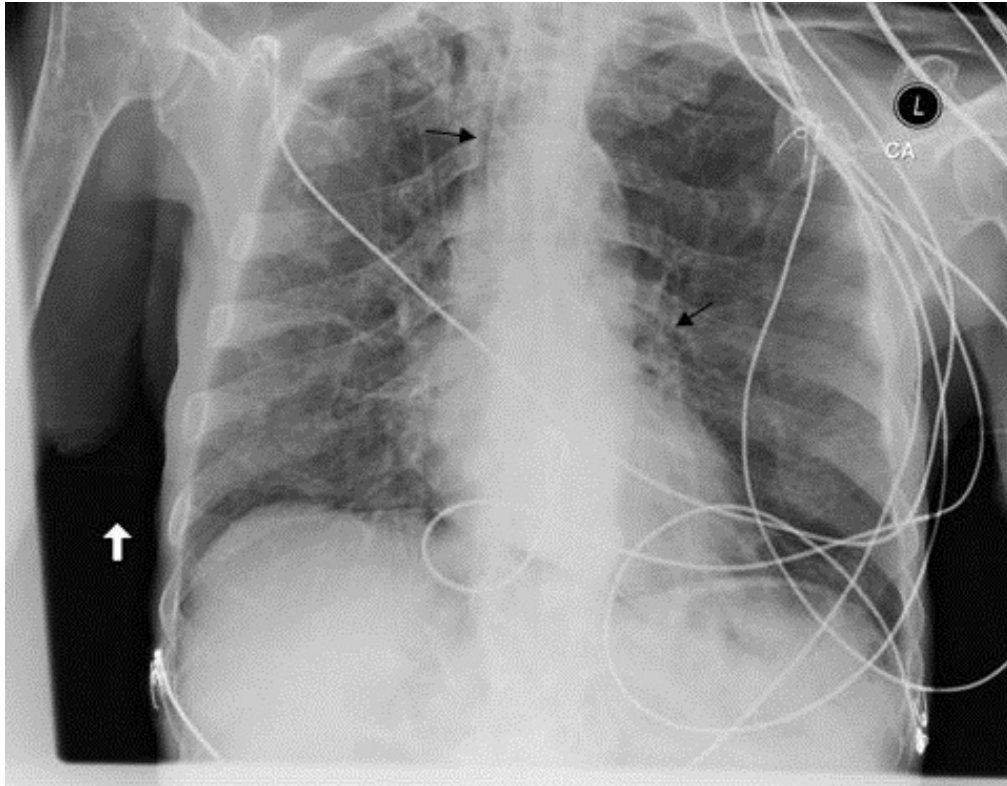


Figure 1. Chest x-ray (CXR) shows subtle evidence of pneumomediastinum with air outlining left cardiac border and trachea (arrows).

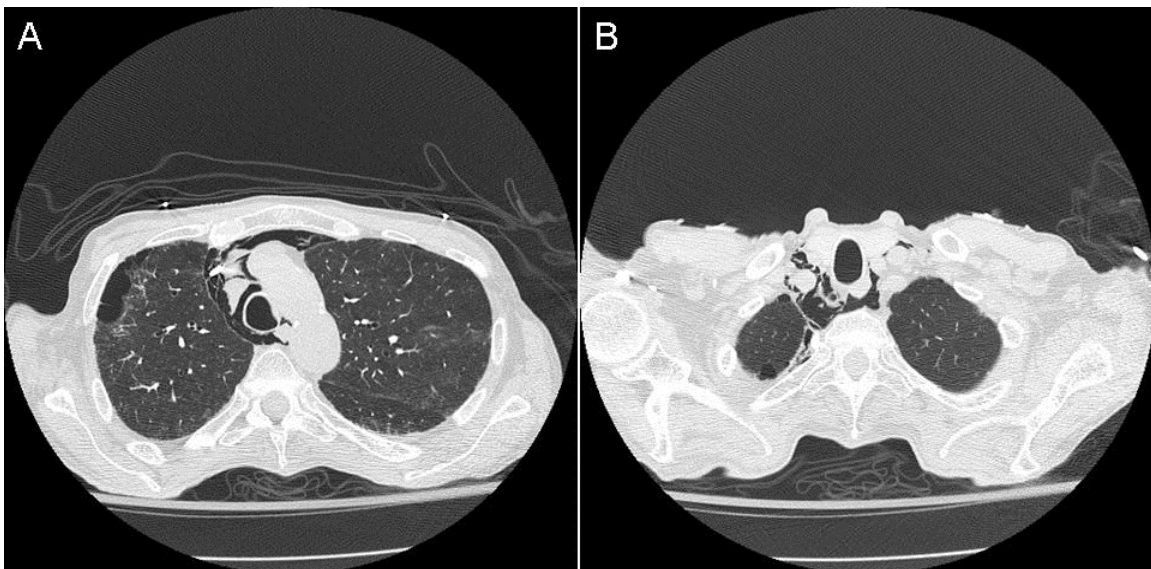


Figure 2. Chest computerized tomography (CT) showing pneumomediastinum (Panel A) extending into lower neck (Panel B) without evidence of pneumothorax.

A 65 year old man presented with mild increase in shortness of breath. He had a past medical history of diabetes mellitus, hypertension, and severe malnutrition with percutaneous endoscopic gastrostomy (PEG) placement after a colectomy and end ileostomy for sigmoid volvulus. CXR (Figure 1) suggested a pneumomediastinum with subsequent chest CT (Figure 2) confirming moderate sized pneumomediastinum. He had a chronic cough from chronic obstructive pulmonary disease (COPD) as well as aspiration and chest CT also demonstrated emphysema with small blebs. He denied any significant chest pain. He was followed conservatively with imaging and discharged in stable condition.

Pneumomediastinum can be caused by trauma, esophageal rupture after vomiting (Boerhaave's syndrome) and can be a spontaneous event if no obvious precipitating cause is identified (1). Valsalva maneuvers such as cough, sneeze, vomiting and childbirth, can all cause pneumomediastinum. Risk factors include asthma, COPD, interstitial lung disease and inhalational recreational drug use. Hamman's sign (a crunching sound in time with the heartbeat) can occasionally be heard. More commonly, subcutaneous emphysema is felt on exam (crepitus). Complications can include single or bilateral pneumothorax, tension pneumothorax and pleural effusion. CXR often does not identify mediastinal air and CT imaging is highly sensitive and confirmatory. Conservative management is recommended with close clinical follow up for possible complications.

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Reference

1. Newcomb AE, Clarke CP. Spontaneous Pneumomediastinum. Chest. 2005;128:3298-3302. [\[CrossRef\]](#) [\[PubMed\]](#)