

Images in clinical medicine



Incidental saber-sheath trachea in a non-chronic obstructive pulmonary disease patient: a radiologic curiosity

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Received: 13 Mar 2026 - **Accepted:** 20 Mar 2026 - **Published:** 17 Aug 2026

Keywords: Saber-sheath trachea, tracheal deformity, right lower lobe pneumonia, incidental finding

Funding: This work received no specific grant from any funding agency in the public, commercial, or non-profit sectors.

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Cite this article: Mummaneni Rashmika et al. Incidental saber-sheath trachea in a non-chronic obstructive pulmonary disease patient: a radiologic curiosity. Pan African Medical Journal. 2026;54(124). 10.11604/pamj.2026.54.124.52154

Available online at: <https://www.panafrican-med-journal.com//content/article/54/124/full>

Incidental saber-sheath trachea in a non-chronic obstructive pulmonary disease patient: a radiologic curiosity

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Image in medicine

Saber-sheath trachea is a rare deformity of the intrathoracic trachea characterized by marked coronal narrowing with relative sagittal widening, resulting in a coronal-to-sagittal diameter ratio of less than 0.5. It is typically associated with chronic obstructive pulmonary disease (COPD) and chronic lung hyperinflation, and is only rarely reported in individuals without obstructive lung disease. We report an incidental radiologic finding of a saber-sheath trachea in an 83-year-old male who presented with chronic cough and fever for 6 months. Physical examination was unremarkable, with no history of COPD, smoking, or prior airway disease. Chest radiography demonstrated

narrowing of the intrathoracic tracheal column. High-resolution computed tomography (HRCT) confirmed marked coronal narrowing with relative sagittal widening of the trachea, consistent with the classic saber-sheath configuration. The coronal diameter measured 11.44 mm and the sagittal diameter measured 23.43 mm, yielding a ratio of less than 0.5. Pulmonary function testing showed no evidence of airflow obstruction. Imaging findings were consistent with right lower lobe pneumonia, and the patient was treated with appropriate antibiotics and supportive care, with clinical improvement. The tracheal deformity was considered incidental. Recognition of this rare presentation is important, as altered tracheal morphology may have implications during airway instrumentation and bronchoscopy.

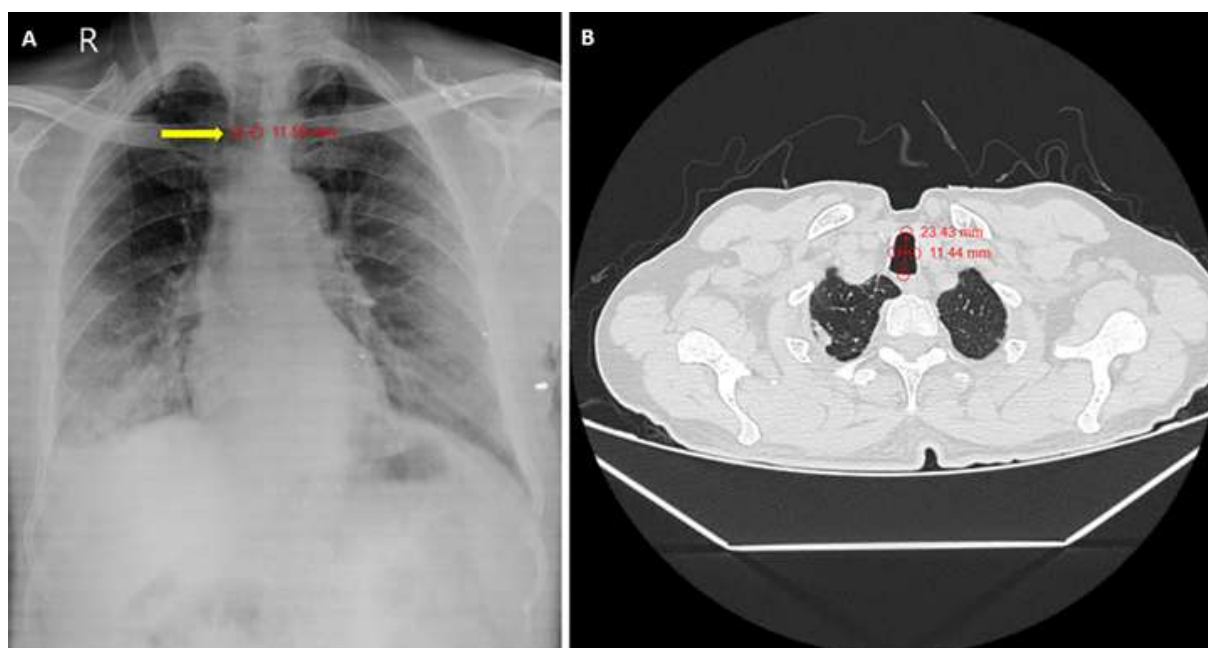


Figure 1: A) chest radiograph showing narrowing of the intrathoracic tracheal column; B) axial high-resolution computed tomography demonstrating coronal narrowing with sagittal widening consistent with saber-sheath trachea