

Medical Image of the Week: Unilateral Diaphragm Paralysis

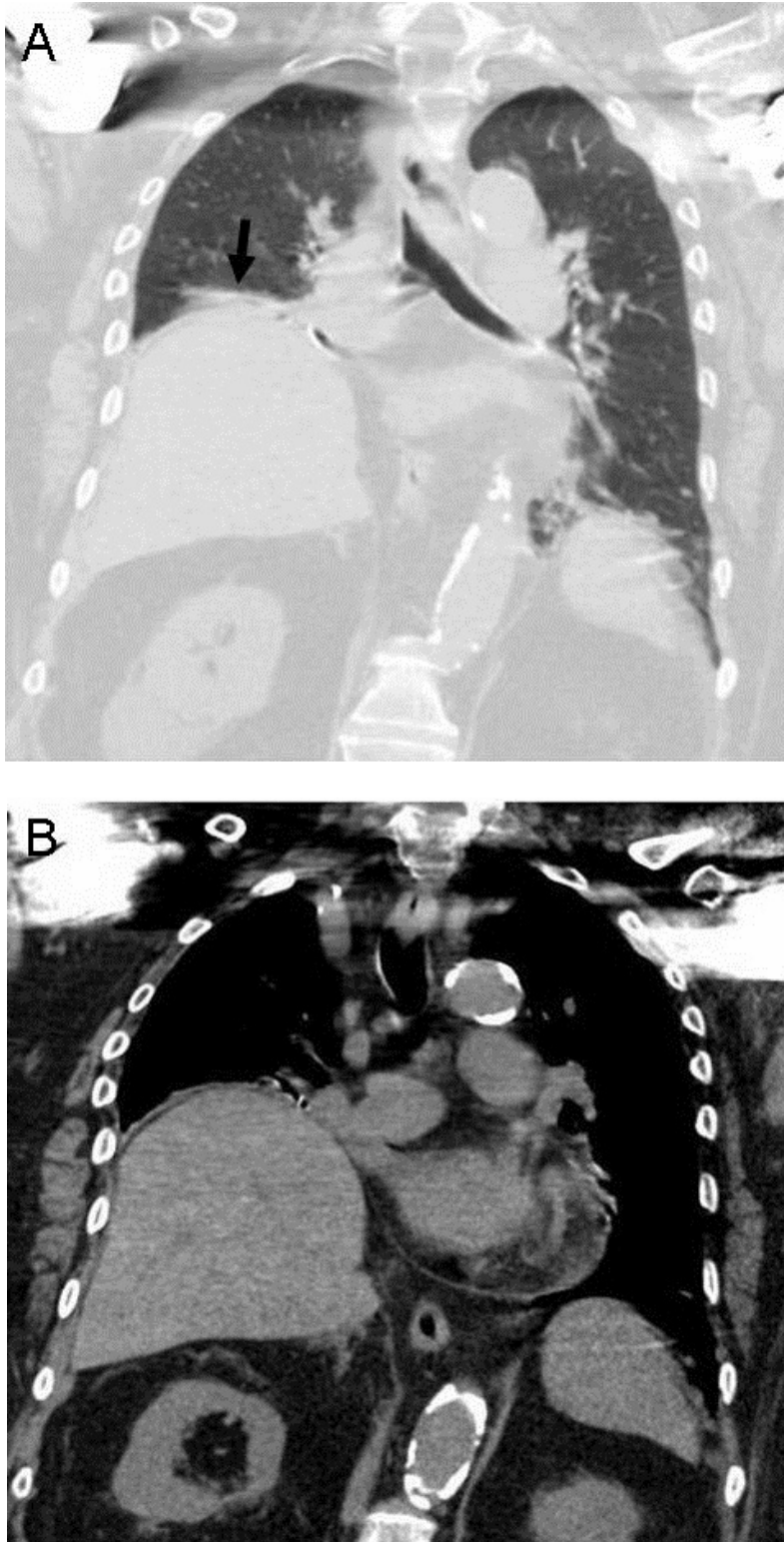


Figure 1. CT scans showing unilateral diaphragm paralysis and atelectasis of right lower lobe (arrow).

An 85 year old woman with a history of COPD presented to the emergency department (ED) with shortness of breath and cyanosis of her fingers. Her symptoms have been waxing and waning since she recovered from pneumonia a year ago. A week prior to admission, she visited an outpatient clinic for worsening cough, which was treated with levofloxacin, however her shortness of breath and cyanosis persisted. O₂ saturation with 4 L oxygen was 85% and CT chest without contrast showed unilateral diaphragmatic paralysis with basilar atelectasis (Figure 1). She has no history of cardiac surgery, poliomyelitis or cervical spondylosis. Also, no cervical or lung mass was found on CT scan. Her diaphragmatic paralysis is most likely secondary to phrenic nerve injury.

Unilateral diaphragmatic paralysis is usually asymptomatic and does not require treatment in most of cases. However, patients with underlying lung disease can present with shortness of breath and cyanosis because of increased ventilatory demands on physical activity or superimposed pulmonary disease. Occasionally, patients with unilateral diaphragmatic paralysis can develop acute respiratory failure due to exacerbation of obstructive lung disease or respiratory infection, and require ventilatory support (1). Early and careful management of underlying lung disease is pivotal in these patients to prevent respiratory decompensation.

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Reference

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