

Clinical Image

Iatrogenic Tracheal Rupture After Emergent Intubation[☆]



Rotura traqueal yatrogénica tras una intubación de urgencia

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A frail 80-year-old woman presented with dyspnea due to an asthma attack and acute respiratory failure requiring emergency orotracheal intubation. Subsequent cervicofacial subcutaneous emphysema developed, extending to the anterior chest wall.

Chest X-ray revealed pneumothorax with extensive subcutaneous emphysema of the chest (Fig. 1A).

The emphysema slowly improved in the intensive care unit, and the follow-up chest computed tomography conducted a week

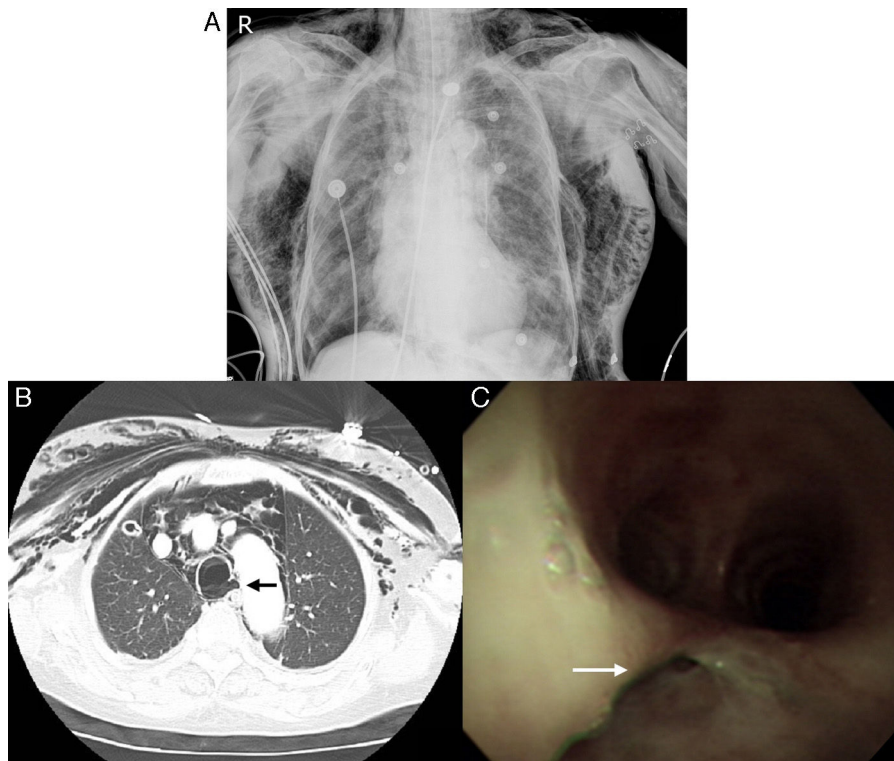


Fig. 1. (A) Pneumothorax and subcutaneous emphysema of the chest. (B) Lower tracheal defect (black arrow). (C) Rupture (white arrow) of lower posterior wall of the trachea.

[☆] Please cite this article as: Chou C-L, Lee T-I, Hu T-Y. Rotura traqueal yatrogénica tras una intubación de urgencia. Arch Bronconeumol. 2017;53:75–76.

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later revealed a lower tracheal defect (Fig. 1B, black arrow). Bronchoscopy confirmed rupture of the lower posterior wall of the trachea, showing a 2 cm vertical lesion (Fig. 1C, white arrow) located 1 cm above the carina. Subsequently, a T-piece was used for spontaneous breathing, and subcutaneous emphysema gradually resolved. The patient was transferred to another hospital for further care.

Iatrogenic tracheal injury due to tracheal intubation is rare, with an incidence of 1/20 000.¹ A multitude of risk factors for the injury have been reported, including advanced age, female sex, and tracheal inflammatory lesions. All of above were detected in our case. Clinical manifestations include dyspnea, hemoptysis, mediastinal emphysema, subcutaneous emphysema, and pneumothorax.¹ An

emergent bronchoscopy is necessary to determine the degree of injury.²

Tracheal injury during intubation is unusual, serious, and difficult to recognize. Early diagnosis is crucial to prevent further complication and mortality.²

References

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