



Near Fatal Hemomediastinum with Hemopneumothorax Following Endobronchial Ultrasound-Guided Biopsy



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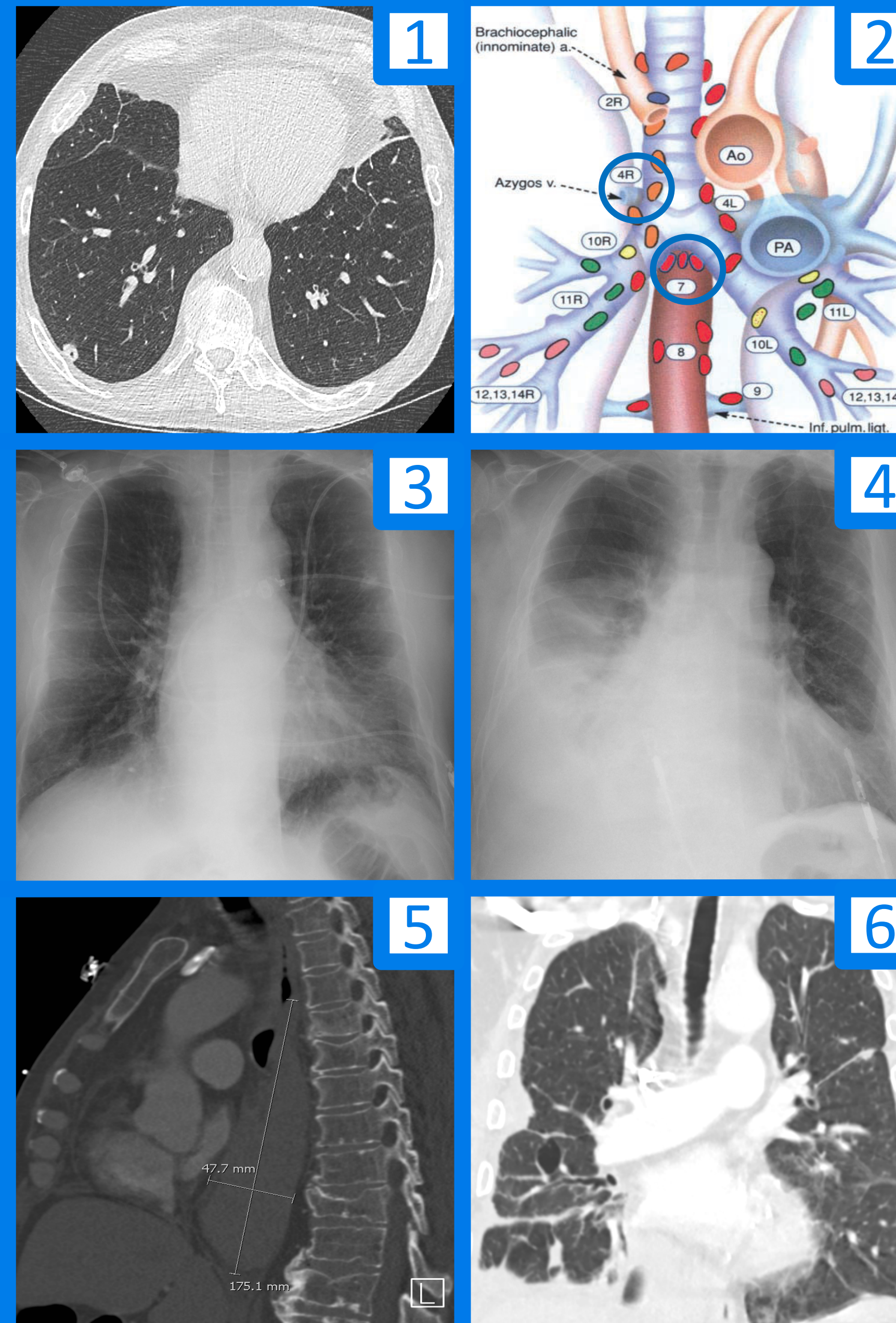
Introduction

- Endobronchial ultrasound-transbronchial needle aspiration (EBUS-TBNA) permits pathological evaluation of mediastinal lymphadenopathy through a minimally-invasive ultrasonographic avenue.
- While typical post-procedural bleeding is minimal, hemomediastinum has rarely been seen following EBUS-TBNA.
- This case highlights a potentially fatal complication that can be associated with EBUS-TBNA.

Case Presentation

- The patient is a 58 year old male with history of COPD, a 45 pack year smoking history and recently diagnosed right lower lobe adenocarcinoma (Exhibit 1).
- An uncomplicated endobronchial ultrasound-transbronchial needle aspiration (EBUS-TBNA) of the 4R and 7 station nodes was performed (Exhibit 2).
- Chest x-ray post procedure showed no significant change from baseline (Exhibit 3).
- Two days post procedure the patient had several syncopal episodes, prompting an emergency department evaluation.
- On presentation, patient was hypotensive, tachycardic and SpO2 was 83% on room air. Decreased breath sounds were auscultated over the right lower lung field.
- Labs were notable for hemoglobin of 10.4mg/dL down from 14mg/dL. Chest x-ray showed moderate-sized right pleural effusion (Exhibit 3).
- CT-angiography revealed an extensive mediastinal hematoma with significant mass effect on the right atrium and right lower pulmonary artery, and concern for right hemopneumothorax (Exhibit 4).
- A repeat CT showed stable size of the mediastinal hematomas with increased loculated right-sided pleural effusions. (Exhibit 6)

Exhibits



Case Continued

- A trial of pulmozyme and alteplase was performed without resolution of the loculations.
- He underwent a video-assisted thoroscopy (VATS) with decortication of the loculated space without complication.
- He was discharged after a 23 day hospital course with radiographically improved hemomediastinum and hemopneumothorax.

Discussion

- EBUS-TBNA is an ideal procedure for staging and determining treatment for patients with malignancy-associated mediastinal lymphadenopathy.
- Common procedural complications may include minor bleeding, infection and pneumothorax
- Significant bleeding is rare, as previous studies have even highlighted successful trials of EBUS-TBNA traversing the pulmonary artery.
- Though unknown, it is hypothesized that during the EBUS TBNA, his azygous vein was injured resulting in his hemomediastinum (Exhibit 2).

Conclusion

- Hemomediastinum following EBUS-TBNA has only been documented twice before.
- In this patient without thrombocytopenia, coagulopathy or hepatic dysfunction it was an unforeseen complication.
- This case represents the first reported case of EBUS-TBNA induced hemomediastinum and hemopneumothorax requiring additional VATS with decortication for symptomatic resolution.

References

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