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# Management of Large Aspergilloma with Massive Hemoptysis Complicated by Adhesions from a Previous Partial Lobectomy

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## Case Presentation

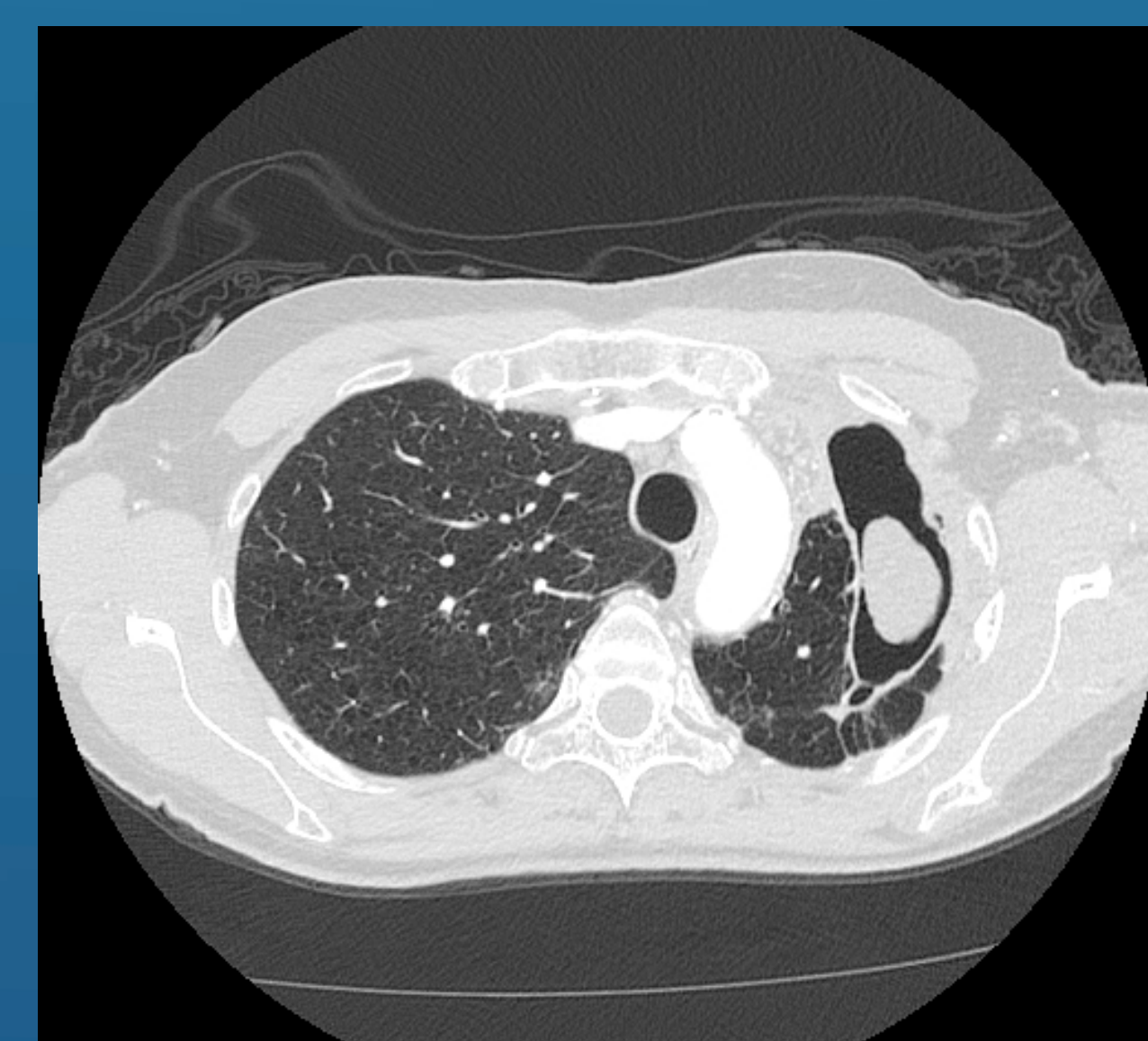
A 61-year-old female with lung cancer status post left upper lobe resection, left lung aspergilloma, bladder cancer was admitted for massive hemoptysis. She underwent emergent bronchoscopy notable for bleeding in the left lower lobe. To protect her right lung from aspiration, she underwent right mainstem intubation. During her hospitalization, she underwent multiple embolization attempts without achieving hemostasis. She remained paralyzed sedated and was treated with antifungals, inhaled TXA, in an attempt to stop hemoptysis without success. A neuromuscular lung quantitative perfusion scan showed no perfusion of the left lung due to a left pulmonary artery thrombosis. Cardiothoracic surgery was consulted for high-risk pneumonectomy. Prior to surgery, she developed septic shock secondary to a *Klebsiella oxytoca* pneumonia in the right lower lobe. Once the infection resolved, she went to surgery and was found to have a large

aspergilloma burden likely causing ongoing hemoptysis. Multiple attempts for pneumonectomy were unsuccessful due to significant bleeding and adhesions from her prior left upper lobectomy. A partial pneumonectomy with an Eloesser flap was performed to clear infection with the left lung remaining in discontinuity. The wound was left open with a wound vacuum placed in the intrapleural space. After three weeks of negative pressure wound therapy, plastic surgery performed a rectus abdominus flap with multiple

drains placed. She was discharged to long term acute care for further rehabilitation.

## Conclusion

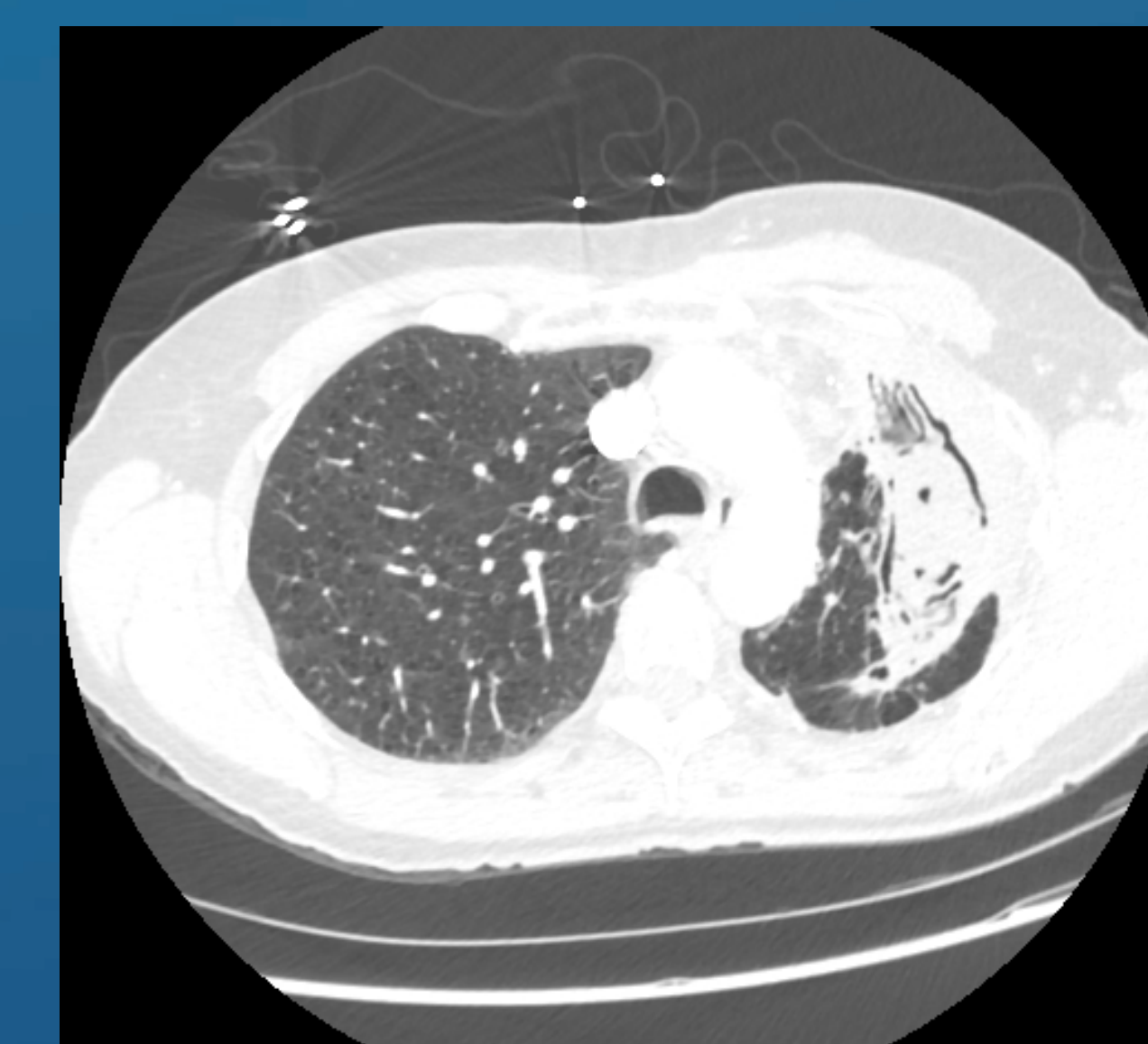
Patients with hemoptysis due to aspergillomas can be difficult to manage, especially in the setting of adhesions. These patients do benefit from surgical resection, but this can be technically difficult due to prior thoracic surgery. In such cases, less invasive interventions can be attempted initially to control bleeding.



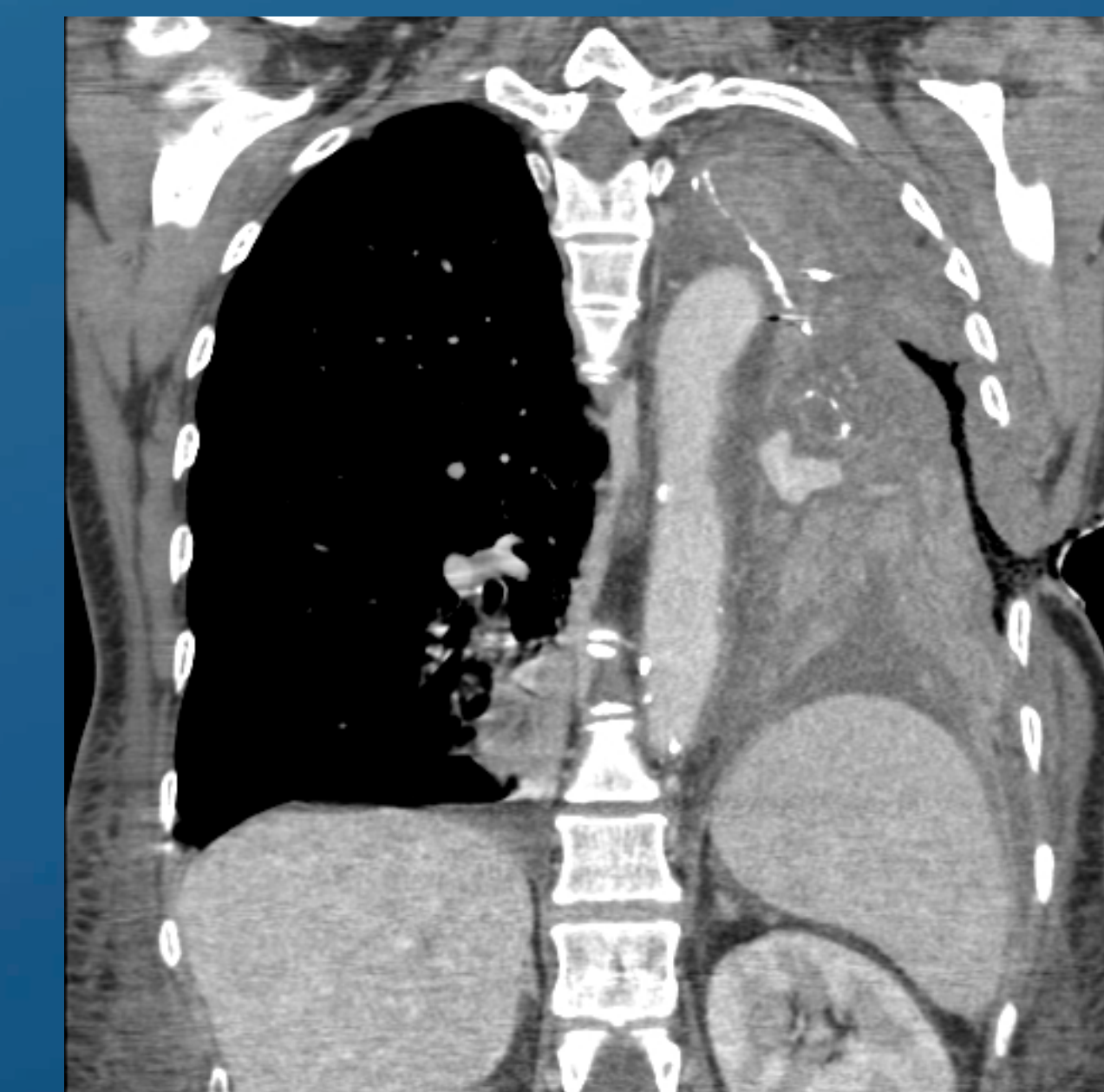
CT chest at time of initial treatment



Chest xray on admission



CT chest during admission



CT chest status post elosser flap

Utilizing a wound vacuum with a lung in discontinuity can be a viable option to manage hemoptysis in place of surgical resection when complications prohibitive.

## Discussion/Key points

- The primary concerns with aspergilloma is hemoptysis.
- Patients with hemoptysis will die from asphyxiation before exsanguination
- Surgical resection is the preferred treatment when not contraindicated for management of aspergilloma, especially in the setting of refractory hemoptysis
- Primary concern with resection is a significant loss of pulmonary function and prolonged ventilator dependence .
- This patient had failed all other interventions and perfusion scan showed her left lung was not contributing to oxygenation
- Multiple embolizations were performed to control hemoptysis, thus left lung no longer received adequate blood flow and would ultimately necrose over time
- The wound vacuum would then slowly remove dead tissue and passively achieve pneumonectomy

## REFERENCES

Patterson T, Thompson G, Denning D, et al. Practice Guidelines for the Diagnosis and Management of Aspergillosis: 2016 Update by the Infectious Diseases Society of America. *Clinical Infectious Diseases*. 2016;63(4):e1-60