

## Clinical Image

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# Tracheobronchial cast

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In June 2021, a 65-year-old male presented for respiratory distress, altered mental status, and tracheostomy bleeding. Emergency medical services reported the tracheostomy was placed approximately 11 days prior for squamous cell carcinoma of the tongue. Patient was bagged through his tracheostomy and was not responding to verbal stimuli. His vitals were: heart rate, 75; respiratory rate, 15; blood pressure, 162/117; and oxygen saturation, 92%.

Otorhinolaryngology (ENT) was paged emergently. The emergency department (ED) attempted to hyperinflate the trach cuff with concern for tracheoinnominate artery fistula; however, this caused resistance with bagging. ED performed in-line suction, with blood return and presumption of appropriate tube placement due to easy advancement [1]. When ENT arrived at bedside, the patient's oxygen saturations declined. ENT removed trach and a large clot [2], replacing trach with a 6.0 endotracheal tube and packing posterior oropharynx [1]. Blood clot was noted to be a tracheobronchial cast (Image A) [2]. The patient's respiratory and neurological status improved. Interventional radiology (IR) was consulted and embolized the right bronchial artery. During hospital course, the patient had another episode of bleeding. IR embolized a pseudoaneurysm in the right lingual artery. The patient's history of radiation led to development of pseudoaneurysms in his head and neck, thus leading to arterial bleeding into his trachea. The patient had a prolonged hospital course secondary to difficulty finding placement. He was weaned to room air and after 7 days could tolerate a full diet with thickened liquids. The patient was ultimately discharged home 78 days after initial presentation with 24-h care and was doing well during a hospital follow-up visit.

When evaluating a bleeding tracheostomy, it is important to note when and why the tracheostomy was placed.

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Emergent complications of tracheostomy include hemorrhage [3], decannulation, and obstruction. Urgent complications include tracheoesophageal fistula, tracheal stenosis, and infection [1].



**Image A:** Tracheobronchial cast measuring approximately 19 cm.

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