Introduction

Mediastinal masses can compress major airways, so these patients need careful evaluation before undergoing anesthesia. However, even large mediastinal masses without any clinical symptoms of airway compression can suddenly develop life threatening airway compression. Therefore, airway management in patients with mediastinal masses with or without evidence of airway obstruction poses a difficult challenge to anesthesiologists. We present a case report of a patient with tracheal mass undergoing sudden cardiac arrest from profound hypoxia from an unrecognized pseudoaneurysm of the lingual artery leading to massive hematoma & airway obstruction.

Case

A 14-year-old male with no pmhx presented to ED for swelling & pain in the left upper neck. Two weeks ago patient had flu like symptoms which resolved without any interventions. There was no history of trauma to neck. MRI of neck revealed 4.1x3.9x11.2 cm mass with rightward shift of trachea. Patient was admitted for mass workup.

The next day anesthesia team responded to cardiac arrest code. Upon arrival, patient was found hand ventilated with ambu bag, saturating in 50’s, epinephrine was given, with ROSC. An oral airway was placed & saturation reached 90’s. Due to existing tracheal mass, video laryngoscopy was attempted, however there was overwhelming bloody secretions, couldn’t visualize anatomy & decision was made to abort, place LMA & take patient to OR for emergency tracheostomy.

Upon arrival in OR, saturation was in 40’s. LMA was removed as we were unable to achieve any ventilation with it. Patient was hand ventilated with oral airway while ENT performed emergent tracheostomy. A 6.0 cuffed ett was placed however no etco2 was noted. ENT believed they have entered false lumen as there was massive blood coming out through oropharynx & trach site. At this point saturation was still in 50’s & patient became bradycardiac & went into asystole. ACLS protocol was initiated & epinephrine x 4 doses given along with bicarbonate & calcium. ENT finally secured tracheostomy & achieved hemostasis. Pink frothy secretions were seen coming through ett as patient went into pulmonary edema. Central line & A line were placed. Abg showed mixed acidosis. Lasix, ffp, platelets were given & epinephrine drip started. Pt was stabilized & transferred to picu for further care. Resolution of pulmonary edema was noted next day. IR guided angiogram of ICA revealed pseudoaneurysm of the left lingual artery which was coil embolized. The mass was biopsied for malignancy & results pending.
Conclusion

Airway obstruction is the most common & feared complication in patients with tracheal mass. These symptomatic as well as asymptomatic patients can develop fatal airway compromise. Therefore, patients at risk of airway obstruction should be identified by presence of respiratory symptoms & radiological evaluation. Those patients at high risk should be electively intubated inside OR. Spontaneous ventilation is preferred during induction of anesthesia & preparedness to restore airway & oxygenation is the key to success.