Mediastinal masses are of particular concern to anesthesiologists as they can cause difficulty with intubation as well as ventilation due to collapse of the tracheal-bronchial tree when anesthesia is administered. Rescue strategies are limited with thorough planning of airway management required. We present a unique case of difficult airway management emergently performed for posterior mediastinal mass with severe obstruction.

A 65 year old female presented to the emergency department with progressive dyspnea, only tolerating sitting position for the past 6 months. She had severe bilateral lower extremity edema and sacral decubiti secondary to immobility. She was admitted for acute on chronic hypoxemic respiratory failure. CT scan revealed posterior mediastinal mass with complete left main stem bronchus obstruction that required further diagnosis and treatment not available at our institution. She was to be transferred, however her respiratory status rapidly declined. She was admitted to the ICU and anesthesia stat was called for intubation.

We anticipated difficult airway management and collapse of tracheal-bronchial tree if positive pressure ventilation was initiated as the patient could not tolerate lying flat due to severe compressive symptoms. Awake fiber-optic intubation was chosen to maintain patient’s spontaneous ventilation and sitting position. Extensive topicalization over one hour was performed as patient was very anxious and would only tolerate short periods off non-invasive ventilation. Patient gargled 2% lidocaine, and pledgets soaked with 2% lidocaine were placed at base of tonsillar pillars. Transtracheal injection of 2% lidocaine was performed as well as nebulized lidocaine inhaled via facemask. Fiber-optic intubation was then initiated with an armored 7.0 tube. Once endotracheal tube position was confirmed, manual ventilation with ambu bag was initiated. Color change was observed by capnometry with breath sounds present on right, diminished on left. Once established that patient could tolerate positive pressure ventilation, pressure support ventilation was initiated with 100% Fi02. Patient was given 20mg ketamine and the tube was secured. Chest X ray confirmed intubation and propofol infusion was slowly titrated 30-40mcg/kg/min.

The patient was transferred the following morning for further management. Small cell lung cancer was confirmed via biopsy, none of the left bronchial tree was free from tumor. Due to overwhelming tumor burden, advanced metastatic disease and poor prognosis the decision was made to terminally extubate the patient in accordance with the family’s wishes. She was transferred to hospice and terminally extubated where she expired.