

C-69 Pearls and Pitfalls in the Management of a Patient With a Large Retrosternal Thyroid

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Objective

After completion of this session, the participant will be able to:

- Formulate an anesthetic plan for securing the airway in a patient with an antero-mediastinal mass.

Case Stem Question

55 year old gentleman with a past medical history of hypertension, obesity (BMI 39), acute Covid-19 infection, and tracheal compression secondary to bilateral thyroid goiter (9 x 5 cm) who initially presented with shortness of breath, and consequently, scheduled for goiter excision. Chest CT showed a persistent large anterior mediastinal mass which extended into the thoracic cavity resulting in complete obstruction of the trachea.

Guiding Questions for Discussion

1. Which aspects of the airway evaluation most likely predict difficult mask ventilation and intubation? How would you intubate this patient, awake with sedation or asleep with muscle relaxation?
2. How can we optimize the patient's preoperative condition to minimize the risk of airway complications peri-operatively?
3. What are the key steps in preparing for a difficult airway management in this scenario, and how can we ensure that the necessary equipment and personnel are readily available?
4. How can we ensure effective communication and coordination among the members of the surgical team during a difficult airway management scenario?
5. What are the 4 steps approach to a failed airway management in the vortex model? (optimal number of attempts at non-surgical airway, emergency surgical airway, green zone: optimize SaO₂, mobilize resources, consider options, definitive airway)

References

1. Philip M Hartigan. Sergey Karamnov. Ritu R Gil, Ju-Mei Ng, Stephanie Yacoubian. Hisashi Tsukada, Jeffrey Swanson, Julianne Barlow, Timothy L. McMurry, Randal S. Blank; Mediastinal Masses, Anesthetic Interventions, and Airway Compression in Adults: A Prospective Observational Study. *Anesthesiology* 2022. 136: 104-114 doi: <https://doi.org/10.1097/ALN.0000000000004011>.
2. Erdos, Gabora; Tzanova, Ireneb Perioperative anaesthetic management of mediastinal mass in adults. *European Journal of Anaesthesiology*: August 2009 - Volume 26 - Issue 8- p 627-632 doi: 10.1097/EJA.obo13e328324b7f.