

## **C-08 Management of Mediastinal Mass and Pericardial Window in Setting of Severe SVC Syndrome**

**Moderator(s)/Facilitator(s):** Reena Parikh, M.D., Farzana Afroze, M.D.

### **Objective**

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

- Recognize the perioperative anesthetic implications of SVC Syndrome.

### **Case Stem Question**

You are assigned to the thoracic surgery room with a resident. The surgeon immediately informs you that the first case is a 33-year-old female who is currently 6 weeks post-partum in the ER presenting for increased shortness of breath and cough. She was just diagnosed this morning with an 11 cm mediastinal mass anterior to the carina and a large pericardial effusion. She is noted to have significant facial swelling and bilateral upper extremity swelling with right upper extremity DVT. Her cough is worsening and now has an intolerance to she is unable to tolerate the supine position. Surgeon said she needs to obtain a biopsy of the mass as well as perform a pericardial window in order to alleviate symptoms and start immediate therapy. On physical examination, the patient has a hoarse voice, appears anxious, and sitting upright. She appears to be in some respiratory distress and states she feels lightheaded. Vitals signs: HR 120, BP 95/60, RR 22, O2 Saturation 95% on room air. EKG shows signs of electrical alternans. She is insisting you “put her out under general anesthesia” immediately as she does not want to be awake for anything due to extreme discomfort. She has a right upper extremity peripheral 20g IV.

### **Guiding Questions for Discussion**

- 1) What is the pertinent pathophysiology in SVC Syndrome and what are the preoperative anesthetic implications?
- 2) The surgeon states he would like to start with the mediastinal biopsy prior to the pericardial window. How do you respond?
- 3) What are your major concerns with inducing GA as requested by the patient?
- 4) Are you comfortable with current IV access prior to anesthetizing this patient? If not, what would you do?
- 5) After the pericardial window, 500 ML of pericardial fluid is drained, and the patient's HR comes down to 70 and BP up to 120/75. Is it safe to now put this patient under a general anesthetic? If so, how would you proceed?
- 6) You decide to intubate the patient and induce with rocuronium. You can intubate, but unable to ventilate at this point. You suspect this is due to compression by the mediastinal mass. What next? What if sugammadex is not readily available?
- 7) What additional contingency planning will you consider with regards to airway and hemodynamics?