

ABA ORAL EXAMINATION QUESTION – SAMPLE 2

Session 2 - 35 Minutes

A 58-year-old 55 kg woman is scheduled for exploratory laparotomy for ovarian cancer. She smoked 2-2.5 ppd until 2 years ago. Stopped because of increasing dyspnea and exercise intolerance. Uses nasal oxygen for night sleeping and cannot walk more than 30 steps without severe shortness of breath. Meds include albuterol and ipratropium inhalers. She has moderate ascites. BP 130/85 mmHg, P 104, R 18, T 37.4°C, Hgb 14.8 gm/dL. ABG (room air) - pH 7.36, PaO₂ 54 mmHg, PaCO₂ 46 mmHg.

PRE-OPERATIVE EVALUATION - 10 Minutes

Analysis of ABGs: How to interpret her ABGs? What is the significance of hypercarbia to anesthetic mgmt? Why is she not acidotic? Receive nasal O₂ continuously rather than just for night sleeping? Why/why not?

Cardiopulmonary evaluation: Presume last PFTs were done six months ago. Should new PFTs be ordered? Why/why not? Would you get an EKG? Echocardiogram? What specific information do you seek that is not evident from the hx and ABGs? Can you rule out pulmonary infection without sputum culture? How? Why is this an important consideration preop?

Anesthetic implications of ascites: Why does the patient have ascites? Does ascites alter your plan for mgmt? How? Why? Should the ascites be drained preop? Would you give albumin preoperatively? Why/why not?

Preoperative medications: What medications would you continue/discontinue preop? Why? If extremely anxious, would you provide sedation? Why/why not?

INTRA-OPERATIVE MANAGEMENT – 15 Minutes

Monitoring: Is a central venous catheter necessary? Why/why not? Would you place an arterial catheter? Why/why not? Do you think a 3-lead EKG is sufficient? Why/why not?

Induction: How will you position the patient for induction? What is your induction plan? Is ketamine a reasonable induction agent? What about Propofol? Etomidate? Explain. How will you attenuate the tracheobronchial response to intubation in this patient? Important to do so? Why?

Severe bronchospasm, hypoxemia with intubation: Immediately after induction and tracheal intubation, PIP increases to 50 cmH₂O. What is your DDX? How will you assess? How to distinguish bronchospasm from endobronchial intubation? Tube obstruction? Pneumothorax? Bilateral wheezing present. How to manage? Compare deep anesthesia vs. albuterol rx. What if hypotension and decreased EtCO₂ also present? Rx?

Anesthetic selection: Is N₂O-narcotic good choice? Why/why not? Is insoluble inhaled anesthetic preferable to a moderately soluble anesthetic? What would be your inhalational agent of choice? Why? What will you use for muscle relaxation? Why?

Management of intraop ventilation, ABGs: Would ventilation settings of TV= 550 ml, RR = 16, I:E ratio = 1:1 be appropriate for this case? Why/why not? Your preferred settings? Why? 45 min into case ABGs are PaO₂ 202 mmHg, (FiO₂ 1.0), PaCO₂ 52 mmHg, pHa 7.41. Interpret. Would you alter ventilation? How? Why? What if PaCO₂ 65 mmHg and bilateral wheezing is prominent?

Extubate or ventilate at surgical end: Does early extubation minimize the risk of recurrent bronchospasm? Explain. Recommend overnight postop ventilation for this patient? Why/why not? If ventilated, use IMV or controlled ventilation? Why? At extubation, pulmonologist recommends no supplemental O₂ to avoid depression of respiratory drive. Agree? How would you manage?

ADDITIONAL TOPICS – 10 Minutes

Carotid surgery: You evaluate a 60-year-old man scheduled for right carotid thromboendarterectomy for recurrent TIA's. In PACU following a left carotid TEA 2 wks ago, he had an episode of ST segment depression in leads V4-6 that resolved with intravenous propranolol and nitroglycerin paste. What further information do you require? Why? Any further evaluation prior to surgery? Explain.

Pediatrics-pyloric stenosis: A 3-month-old infant has been vomiting for four days and is scheduled for a pyloromyotomy. How will you assess volume status? Endpoint of fluid therapy? Is awake intubation preferable? Why/why not? What technique selected for induction and intubation? Why? What anesthetic circuit? Why? Compare pediatric and adult circuits.

Regional anesthesia: A 23-year-old male is scheduled for shoulder arthroplasty. He is terrified of general anesthesia and desires to remain awake. How will you respond? What options are available for anesthesia? Which would you choose? Why? Compare an interscalene vs. supraclavicular block. Advantages/disadvantages. Could this procedure be done with an interscalene block alone? Why/why not?