



The Hong Kong College of Anaesthesiologists

Final Fellowship Examination Paper I

Thursday 3rd April 2008
09:00 - 10:30 hrs

Instructions:

- There are three pre-labelled answer books. Please make sure you answer the respective questions in the appropriate answer book.
 - Write your examination number on the cover of each answer book.
 - Answer **ALL** questions (nine questions). They are worth equal marks and you should spend approximately ten minutes for each question.
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Scenario A

A 50-year-old woman is scheduled for elective total thyroidectomy for long-standing multi-nodular goitre.

- How would you assess and manage this patient preoperatively?
- Discuss your anaesthesia technique for total thyroidectomy in this patient (pre- and post-operative management NOT required).
- Three hours postoperatively, the patient complains that “she can’t breathe” and insists on sitting up. SpO₂ is 94% on oxygen. What are the likely causes and how would you manage her?

Scenario B

A 32-year-old healthy woman undergoes laparoscopic cholecystectomy. She has no known allergies. Her father died of myocardial infarction at age 60. On arrival in the operating theatre her pulse was 100/min and her blood pressure was 120/60 mmHg. Anaesthesia was induced with fentanyl, propofol and rocuronium. She has had morphine 5 mg and end-tidal isoflurane is 1.1% in 70% nitrous oxide. Twenty minutes after incision, her blood pressure suddenly rises to 250/115 mmHg, and her heart rate increases to 150/min.

- What are the potential causes for the haemodynamic changes?
- How would you manage this patient? Explain your reasons.
- The blood pressure decreases to 165/102 mmHg and the heart rate is 100/min with frequent ventricular extrasystoles. All other physiologic parameters are normal. What would you advise the surgeon now? How would you manage her?

Scenario C

A 73-years-old male with infra-renal abdominal aortic aneurysm is scheduled for endovascular stenting which will take approximately 4 hours at the radiology suite. His significant past medical history includes: diabetes mellitus and chronic obstructive pulmonary disease with mild cor pulmonale which are well controlled. The notable results of his recent investigations: hyper-inflated lung on chest x-ray, FEV₁/FVC = 0.85/1.38 (50% predicated), mildly dilated right ventricle on echocardiography, and serum creatinine 120 µmol/L. His functional status is about 4 METs and his medications include: bronchodilators, ramipril and metformin.

1. What is your choice of anaesthesia for this patient? Justify your choice.
2. Discuss the strategy of renal protection for this patient.
3. Discuss the role of Swan-Ganz Catheter (pulmonary artery catheter) as part of the monitoring for this particular case.

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