



The Hong Kong College of Anaesthesiologists

Final Fellowship Examination Paper I

Friday 18th March 2005
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 25-year-old man has been knocked unconscious in a head-on collision. On admission he was confused (GCS 13) but deteriorated (GCS 8) and was intubated and ventilated. An urgent CT scan showed a sub-dural haematoma with diffuse brain injury and intracerebral contusions. He has no other injuries and the cervical spine is clear. He requires surgery for evacuation of the sub-dural haematoma.

- Describe the anaesthetic considerations relevant to his management.
- An intracranial pressure (ICP) monitor shows an ICP of 35 mmHg. A CT scan shows a tight brain, small ventricles and no clot. What immediate checks and management should be instituted?
- The patient develops fixed dilated pupils. Describe the conditions and tests that would confirm brain stem death and specify which cranial nerves are tested.

Scenario B

You are the specialist anaesthetist working in a tertiary hospital. Your department has to provide anaesthetic service for electroconvulsive therapy (ECT) twice a week at a psychiatric hospital which is 10 minutes away from your hospital.

- What is your choice of anaesthetic agents for ECT? Justify your choice.

You are consulted for an 'urgent' ECT for a 60-year-old male with major depression and suicidal ideation. The patient has stable angina for 2 years with medical therapy and a functional status of New York Heart Association (NYHA) Class II. His medications include Metoprolol, Aspirin and Fluoxetine (Prozac).

- Discuss your assessment and preparation of this patient before ECT.

6. Outline your anaesthetic management plan for the above patient undergoing ECT.

Scenario C

A 35-year-old primigravida has known aortic stenosis with an aortic area of 1.4 cm². At 34th week of pregnancy, she tolerates walking up three flights of stairs. You are consulted to assess this patient.

7. Outline your assessment of the severity of her aortic stenosis at the consultation.

Following consultation among her obstetrician, cardiologist and anaesthetist, an elective vaginal delivery was arranged at 39th week of pregnancy under controlled circumstances. At 38th week of pregnancy, she goes into spontaneous labour.

8. Discuss the options of analgesia for her labour pain

Epidural analgesia was initiated when the cervix was 3 cm dilated. Unfortunately, she collapses 4 hours after initiation of the regional blockade when labour has progressed to 5 cm cervical dilatation. Electrocardiogram shows ventricular fibrillation.

9. Briefly describe how you would perform cardiopulmonary resuscitation in this patient.

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