



Faculty of Medicine, University of Ruhuna
Final Examination for Medical Degree
November 2007

Medicine Paper 1
5 November 2007, 0900 -1200 hrs

Answer all TEN questions
Answer each Part in a separate book

Part A

Q1 A 76 year old woman with the history of ischemic heart disease was admitted with faintishness and palpitations of one day duration. Examination on admission showed no features of heart failure. Her heart rate was 140 beats per minute and the blood pressure was 110/70 mmHg. The electrocardiogram showed an irregularly irregular heart rate with normal QRS complexes.

- 1.1 What is the most likely rhythm abnormality? (10 marks)
- 1.2 List TWO other features in the electrocardiogram that would support your answer in 1.1. (20 marks)
- 1.3 List THREE drugs that can be used to treat this rhythm abnormality. (30 marks)
- 1.4 List TWO complications in this patient as a result of this rhythm abnormality. (20 marks)
- 1.5 Mention TWO ways in which you could minimise the risk of complications mentioned in 1.4. (20 marks)

Q2 A 75 year old patient with difficulty in breathing of one year duration has been prescribed with two types of metered dose Inhalers by his doctor for the last 6 months. The patient, however, continues to have symptoms particularly during the night.

- 2.1 What information would you inquire during the history taking in this patient in order to find the cause of continuing symptoms? (30 marks)
- 2.2 What physical signs would you look for during the physical examination? (30 marks)
- 2.3 What actions would you take to maximize his response to inhalers, if he is confirmed to have asthma? (40 marks)

Part B

Q3 A 20 year old male presents with a history of passing dark coloured urine and swelling of feet for several days. Clinical examination reveals puffy facies, blood pressure of 160/100 mmHg, jugular venous pressure of 5 cm above the sternal angle and ankle oedema.

- 3.1 What is your clinical diagnosis? (20 marks)
- 3.2 List FIVE investigations would you do to support the diagnosis mentioned in 3.1? (15 marks)
- 3.3 List FOUR clinical parameters and FOUR bedside OR laboratory tests that you will use to monitor the patient during the hospital stay. (25 marks)
- 3.4 List THREE life threatening complications that this patient can develop and describe how you would recognize any ONE of them. (40 marks)

- Q4
- 4.1 Describe the presentation of a young patient with hyperthyroidism. (20 marks)
- 4.2 How does the above presentation differ in the elderly patient? (20 marks)
- 4.3 How is hyperthyroidism confirmed? (10 marks)
- 4.4 Describe the follow-up plan of a patient who has been prescribed anti-thyroid medication for hyperthyroidism. (50 marks)

Part C

Q5 A 15 year old girl is brought to Teaching Hospital Karapitya with poorly controlled seizures in spite of being on optimal doses of sodium valproate, carbamazepine and phenytoin sodium. Her development had been delayed since infancy and teachers had told the parents that the school performances were poor.

Her parents are educated up to grade 10 and now work in their own tea cultivation. Two of her siblings are healthy and schooling.

- 5.1 Briefly discuss possible causes for the poor control of seizures in this patient. (60 marks)
- 5.2 Discuss the problems that are likely to be encountered by the family in the long term management of this patient. (40 marks)

Q6 A 45 year old previously healthy man is admitted to Teaching Hospital Karapitya with a history of pain and swelling of right knee joint. There is no history of trauma.

- 6.1 Give THREE differential diagnoses you would consider in this patient. (30 marks)
- 6.2 List TWO clinical features that will confirm or support each of the diagnosis given in 6.1. (30 marks)
- 6.3 List ONE confirmatory investigation for each of the diagnosis given in 6.1. (15 marks)
- 6.4 Discuss briefly the management of one of the conditions you mentioned in 6.1. (25 marks)

Part D

Q7 A 60 yr old male is seen with recurrent episodes of dizziness and headache. On examination he was found to be plethoric, pulse rate 80 beats per minute, blood pressure 150/90 mmHg and heart sounds normal. Respiratory system and abdomen examination were normal. Nervous system was normal except for engorgement of veins in both optic fundi.

The investigation results were as follows:

Fasting blood glucose 90mg/dl

Blood urea 30mg/dl

Full blood count Hb 17.5g/dl; PCV 57%, WBC 14,000/mm³; neutrophils 78%, lymphocytes 20% eosinophilic 2%

ECG - normal

- 7.1 What is the most likely diagnosis? (20 marks)
- 7.2 Give TWO other possible diagnoses. (20 marks)
- 7.3 Write SIX investigations that you would request in this patient to arrive at a diagnosis giving the expected results. (60 marks)

Q8 A 25 year old boy is admitted with fever and joint pains of five days duration. He has passed only a few drops of dark urine for the past 24 hours. On examination he is dyspnoeic with the respiratory rate 25 per minute and deeply icteric. Jugular venous pressure was elevated with the pulse rate 110/bpm, blood pressure 100/70 mmHg and bilateral crackles were present on auscultation. Abdomen and nervous system examination was normal.

Investigations showed the following results:

WBC -13,500 Neutrophils-78%, Lymphocytes-22%
Blood urea 125mg/dl
Urinalysis - Albumin +, RBC-20 cells/field
ECG - sinus tachycardia with T inversions chest leads
Chest radiograph - bilateral diffuse shadows.

- 8.1 What is the most likely diagnosis? (20 marks)
- 8.2 Give TWO other differential diagnoses. (10 marks)
- 8.3 Write THREE complications that you would suspect in this patient according to the given clinical picture. (30 marks)
- 8.4 Briefly discuss the management of this patient. (40 marks)

Part E

Q9 A 22 year old single female was brought to the psychiatry unit with difficulty by her family members. She has been refusing to come out of the house for the last months saying that somebody is preventing her from going out using some kind of "rays" Parents have noticed her being thoughtful and staring to space at times. She has neglected her self care too.

On examination, she was agitated and refused to talk to the doctor. She was insisting on going home and tried to run away soon after the admission.

- 9.1 What is the psychopathology seen in the above patient? (10 marks)
- 9.2 What is the most likely diagnosis? (10 marks)
- 9.3 What measures are you going to take to prevent her from leaving the ward? (40 marks)
- 9.4 Describe the management of this patient. (40 marks)

Q10 A 32 year old male school teacher came to mental health out-patient clinic saying he has disturbed sleep for two months. In detailed inquiry, he revealed that he wakes up in the night after a brief sleep with difficulty in breathing and chest pain. He had attacks of chest discomfort and breathing difficulty during the daytime too. He had several hospital admissions for chest pain over last two months and he was told that he has no medical problem.

- 10.1 Mention THREE specific clinical features you would look for to arrive at a diagnosis? (15 marks)
- 10.2 Mention the specific diagnoses indicated by the clinical features given by you in 10.1. (15 marks)
- 10.3 What is the likely diagnosis? (10 marks)
- 10.4 How would you manage this patient? (60 marks)

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