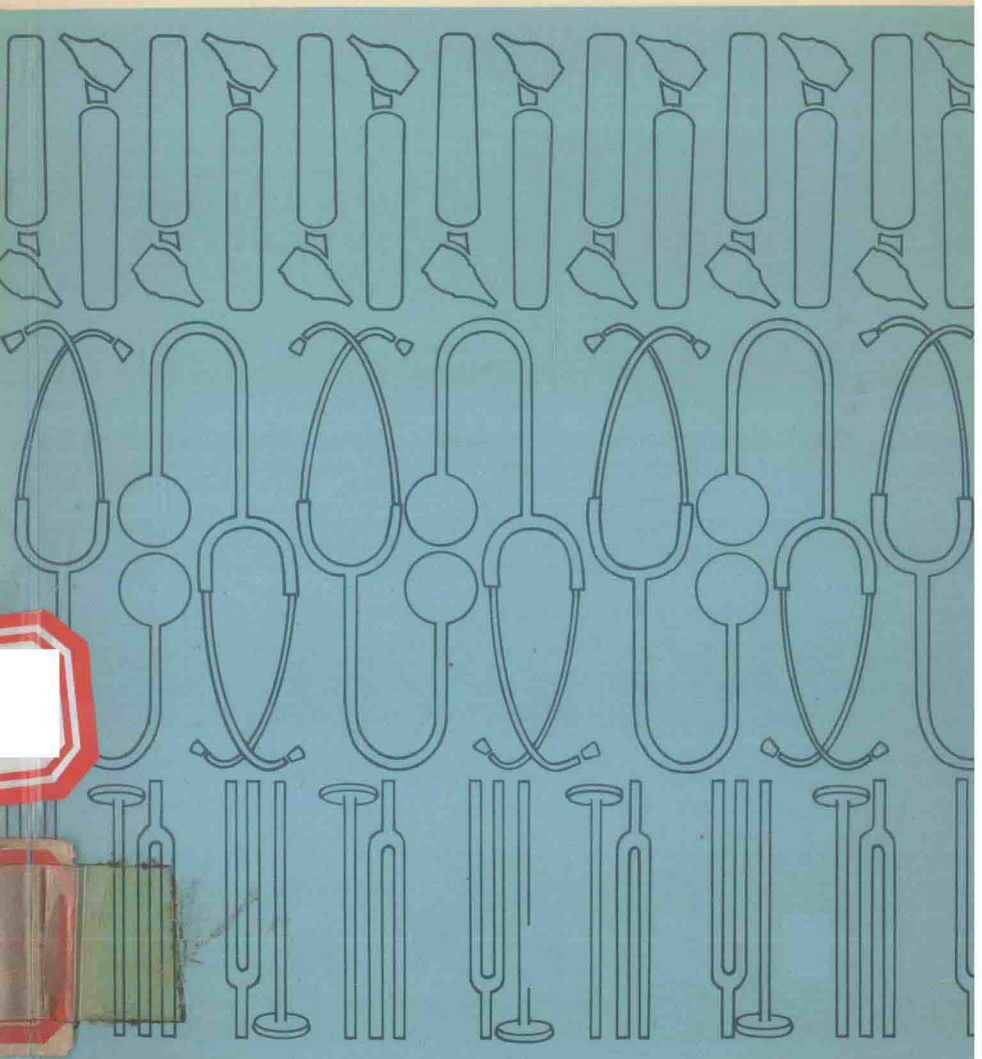
D C Anderson / D M Large

Self-Assessment in Clinical Medicine



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Self-Assessment in Clinical Medicine

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Self-Assessment in Clinical Medicine

Preface

This book of multiple choice questions sets out to assess knowledge of basic clinical medicine. The questions can either be used by students to assess their own basic knowledge, or by their teachers to aid in objective assessment. Candidates preparing for the MRCP or similar higher examinations may also benefit, since it is so often fundamental errors which cause their downfall; the book should help in their detection and correction without embarrassment. It is not designed to take the place of, or to assess the extent of minute factual knowledge accrued from, textbooks. In this respect our aims differ from those of some other authors of MCQ books in medicine.

The questions (1055 in all) are arranged in groups of five. Rather than break them up excessively, and in order to improve their educational value, we have often opted for a question which contains several components. In every case the statement is only deemed to be 'true' if *all* the individual parts of the question are correct. An important part of the book is the brief explanatory note used in the answers section usually where the statement is false. Each group of five questions is on a related topic, but no answer is dependent on that of others in the group. The questions range considerably in difficulty, but we have deliberately mingled simple and complex ones at random. Those that appear to be particularly basic are marked in the answer section with an asterisk; these should present no problem to the good student at the end of the first clinical year. There are, we hope, few questions that might not reasonably be asked of the student at the time of graduation.

The book is arranged with the questions in five sections, which

explore knowledge from five different viewpoints. These are: section A—symptoms; B—physical signs; C—diseases and syndromes; D—basic investigations; and E—case histories. Those who wish to concentrate in turn on questions relating to a particular system will find these listed by systems at the end of the book.

We are grateful to our colleagues for many helpful and constructive criticisms in the design of the questions. However, we take full responsibility for any inadvertent errors.

D. C. Anderson *Salford 1981*
D. M. Large

Contents

Part 1

Multiple choice questions

Each question is either true or false. Where a question contains one or more parts it should be marked true only if all components are correct. Where necessary a brief explanation has been included with the answers.

Section A

Symptoms

A1. Weight loss

a. Significant loss of weight is a common feature in hypopituitarism, Addison's disease and Graves' disease.

b. Weight loss with anorexia usually indicates underlying gastrointestinal pathology.

c. The presence of weight loss and polyuria may suggest the presence of diabetes mellitus, diabetes insipidus and chronic renal disease.

d. Weight loss following partial gastrectomy may be due to the development of malabsorption, pyloric stenosis or reluctance to eat due to the dumping syndrome.

e. Marked, progressive loss of weight with a disturbance of body image is a characteristic feature in anorexia nervosa.

A2. Weight gain

a. The administration of sex hormones, liquorice derivatives and phenylbutazone may all result in weight gain by producing salt and water retention.

b. The presence of oedema and weight gain may mask a significant loss of body tissues in hepatic cirrhosis.

c. Cyclical retention of fluid and electrolytes commonly occurs following menstruation.

d. In obesity, hyperinsulinism may aggravate the condition by promoting lipogenesis and inhibiting lipolysis.

e. Patients who achieve a marked weight reduction during intensive dietary restriction rarely relapse following their discharge from hospital.

A3. Easy bruising

- **a.** Is not necessarily an indication of a haemorrhagic disorder, particularly in women.
- **b.** Associated with the development of a petechial rash, most marked over the legs, is more likely due to thrombocytopenia than to defective clotting factors.
- **c.** Prolongation of the bleeding time is to be expected in symptomatic thrombocytopenia.
- **d.** The association with purpura, abdominal colic and melaena in a young boy suggests the diagnosis of haemophilia.
- **e.** Bleeding into joints after minimal trauma seldom occurs in Factor VIII or IX deficiency.

A4. Loss of consciousness

- **a.** A cold sweat, faintness and bradycardia are more likely to presage syncope than epilepsy.
- **b.** Sudden loss of consciousness indicates a primary neurological disorder.
- **c.** Occipital headache followed by loss of consciousness is a characteristic presentation of subarachnoid haemorrhage.
- **d.** Micturition syncope is more likely to occur in middle-aged than old men.
- **e.** Cheyne-Stokes breathing in an unconscious patient makes respiratory failure the most likely underlying cause.

A5. Epileptic fits

a. An aura is an unusual appearance or movement preceding a fit, of which the patient is quite unaware.

b. Prodromal symptoms such as the *déja-vu* phenomenon, are most likely to occur when the abnormal focus is located in the temporal lobe.

c. May in some cases be precipitated by the following: alcohol, excitement and a repetitive flickering stimulus such as a faulty television set.

d. Petit mal seizures are typically frequent absences, seen almost always in children, and associated with a classical 'delta' wave pattern on EEG.

e. A grand mal seizure following twitching of the right thumb spreading to the whole right arm suggests a focal lesion affecting the left pre-central gyrus.

A6. Headache

a. Patients treated with tricyclic antidepressants often develop severe headaches after ingesting tyramine-rich foods.

b. Severe unilateral headache in a man of 60 with a thickened temporal artery and elevated ESR is likely to improve with steroid therapy.

c. The headache of raised intracranial pressure characteristically gets worse as the day progresses.

d. Regular treatment with aspirin may relieve the headache associated with a brain tumour.

e. In a patient with fever and headache the absence of neck stiffness makes meningitis unlikely.

A7. Depressive illness

a. The threat of suicide should always be taken seriously even if the patient says he would not have the courage to carry it out.

b. The typical sleep disturbance in a depressive psychosis is of difficulty getting to sleep rather than early morning wakening.

c. Anxiety is seldom a prominent feature.

d. Obsessional thoughts are typical at the time of presentation.

e. Lithium therapy may be of particular value in treatment of bipolar depression (i.e. true manic-depressive illness).

A8. Speech disorders

a. Dysphasia is a disorder of articulation.

b. The speech area is in the right cerebral hemisphere in 90% of people.

c. Scanning speech is a common manifestation of myasthenia gravis.

d. A bilateral but not a unilateral upper motor neurone lesion affecting bulbar muscles causes permanent dysarthria.

e. Acquired dyslexia commonly results from a lesion of the non-dominant parietal lobe.

A9. Vertigo, dizziness

a. Deafness hardly ever occurs in association with central (brain stem) vertigo.

b. Labyrinthine vertigo is often provoked by abrupt rotation of the head.

c. An anxious patient may use the term 'dizziness' to imply an attack of acute anxiety.

d. Vertigo commonly causes nausea and vomiting.

e. Prolonged incapacitating vertigo may occur in brain stem infarction, and after treatment with aminoglycoside antibiotics.

A10. Visual disturbances

a. The sudden development of diplopia due to a sixth nerve lesion is a recognised complication of diabetes mellitus.

b. The fortification spectrum of migraine is due to cortical ischaemia during the phase of vasoconstriction.

c. A patient with bilateral occipital lobe infarction will commonly deny that he is blind.

d. Sudden visual deterioration due to optic neuritis rarely recovers, even when ACTH or corticosteroid therapy is given early.

e. In the presence of a complete third nerve palsy the dilated pupil constricts normally in response to light shone into the other eye.

A11. Diplopia

a. May occur with concomitant as well as paralytic squint.

b. The absence of pupillary dilatation makes a third nerve lesion highly unlikely.

c. If it is most marked on looking to the right, and the lateral image disappears on covering the right eye, there is a right sixth nerve palsy.

d. Transient diplopia and ptosis most marked at the beginning of the day are typical of ocular myasthenia gravis.

e. In a patient with thyroid eye disease and exophthalmos, diplopia is commonly most marked on looking upwards.

A12. Weakness and muscle wasting

a. Selective proximal muscle weakness is a common feature in hypothyroidism.

b. Wasting of muscles may be a sign of both upper and lower motor neurone lesions.

c. In carcinoma of the bronchus, proximal myopathy may develop before the tumour is radiologically detectable.

d. Hypotonia only occurs in posterior column and cerebellar lesions.

e. Wasting associated with fasciculation is typical of an upper motor neurone lesion.

A13. Sensory changes

a. A complaint of sensory changes is not always accompanied by an objective sensory loss.

b. Peripheral neuropathy, sensory loss due to cord damage and later spastic paresis are typical of severe B12 deficiency.

c. Parathesiae associated with epilepsy are caused by a circulatory disturbance of the sensory cortex.

d. Weakness of opponens pollicis accompanied by sensory changes over the radial half of the hand suggest the presence of median nerve compression in the carpal tunnel.

e. Shooting pains in the lower limbs are more typical of disseminated sclerosis than tabes dorsalis.

A14. Sensory changes

a. The best way to detect changes in pain sensation is by using a sharp needle.

b. Transection of the spinal cord produces loss of all forms of sensation below the level of the lesion.

c. Vibration and proprioceptive sensations are frequently lost together.

d. Touch sensation is usually tested for by stroking the skin with a wooden spatula.

e. Nerve fibres carrying sensations of pain, temperature and some touch cross the midline in the medulla oblongata.

A15. Palpitations

a. Palpitations may be a prominent feature of hypoglycaemia.

b. Palpitations are associated with hypothyroidism more commonly than with hyperthyroidism.

c. In a patient with mitral stenosis, suddenly increasing dyspnoea is commonly due to the development of an arrhythmia.

d. Irregular palpitations in a young man are likely to be due to a supraventricular tachycardia.

e. Associated with headaches, sweating and hypertension suggest a noradrenaline-secreting tumour.

A16. Chest pain

a. The pain of acute pericarditis does not generally radiate down the arm, and may be relieved by leaning forwards.

b. In acute pneumothorax the pain is usually sudden, worse on the affected side of the chest, and worse on expiration.

c. Sudden constricting central chest pain associated with peripheral hypotension, exaggerated pulmonary second sound and triple rhythm suggests massive pulmonary embolism.

d. Sudden tearing chest pain which radiates into the legs, associated with loss of one or more pulse, suggests rupture rather than dissection of an aortic aneurysm.

e. Crepitus at the site of pleuritic chest pain indicates acute pleurisy.

A17. Chest pain

a. Central chest pain may be induced by a cardiac arrythmia.

b. Angina occurring at rest may be confused with the pain of oesophagitis.

c. Sudden withdrawal of beta blockers is unlikely to cause rapid deterioration of angina.

d. Chest pain which subsides more than 10 minutes after sucking a tablet of trinitrin is unlikely to be angina.

e. Trinitrin relieves angina mainly by producing coronary vascular dilatation.

A18. Intermittent claudication

a. The term is applied to intermittent skeletal muscle pain only if there is a clear relationship to exercise.

b. Glyceryl trinitrate taken prophylactically may prevent its development, by inducing vasodilatation.

c. Palpation of normal popliteal, but absent dorsalis pedis and posterior tibial pulse on the side in which calf claudication occurs suggests that arterial bypass surgery would be beneficial.

d. Pallor on elevation and a blotchy red colour developing gradually on dependency both suggest severe arterial insufficiency.

e. A lumbar sympathectomy is more likely to improve blood flow in the superficial (cutaneous) than the muscle circulation of the lower limb.

A19. Peripheral vascular symptoms

a. In a woman of 34 years the development of Raynaud's phenomenon may be the first manifestation of systemic lupus rythematosus.

b. The cutaneous plantar ulceration associated with peripheral vascular disease in an old man is usually extremely painful.

c. Sudden blockage of the femoral artery causes an acute painful white leg.

d. Lumbar sympathectomy is contraindicated in peripheral vascular disease of the legs because it causes cutaneous vasoconstriction.

e. In the subclavian steel syndrome, vigorous use of one arm produces peripheral paraesthesiae in the opposite arm.