

OSCEs

FFAEM Exam 8th November 2000

(Total 12 questions, although some multiple parts. 60 minutes)

1. An ECG, (12 lead).
Broad complex rhythm for half the ECG, rate about 90/min. Then sinus rhythm. Not clear whether or not p waves present.
 - a. What is the rhythm. (I wasn't sure: CHB or nodal rhythm with low escape. I think I opted for the latter. Other answers suggested include idioventricular rhythm)
Second ECG was taken after the first above.
 - b. Describe the abnormalities. (I thought it was an inferior MI with lateral extension and reciprocal anterior changes. There was appropriate ST elevation, depression and Q-waves.)

2. A CXR from a paediatric victim of trauma (aged about 9).
Showed multiple L # ribs, I think from 1-8 visible posteriorly. Also # scapula at neck, # clavicle. Patient was intubated and appeared to have a R jugular line in situ. Pleural cap, loss of L costophrenic angle implying haemothorax).
 - a. What abnormalities do you see?
 - b. What further imaging would you choose and why?

3. Pelvic Xray in an elderly patient. Showed # of R acetabular floor. Also showed calcified aortic bifurcation and common iliac vessels.
 - a. Describe 2 abnormalities. (Other possible abnormalities were phleboliths and possibly something (?? spina bifida occulta) at about L5)

4. Lateral skull Xray of a patient with a gunshot wound to head. I saw a hole in the L temporal region, with a white opacity beside it. I now suspect it was a bullet hole and depressed skull fracture, with intracranial air and the opacity was the flattened bullet or more likely, airgun pellet.
 - a. What abnormality(s) do you see?

5. 2 facial Xrays. Severe injuries: # R zygomatic complex (tripod #), # medial orbital wall, inferior orbital margin, blood in the R maxillary sinus.
 - a. What abnormality(s) do you see?

6. Lateral skull Xray of patient with a head injury. (I think the patient had a nosebleed). Fluid level (blood) in sphenoid sinus.
 - a. What abnormality(s) do you see?

7. CXR in trauma patient. I think it showed a tension haemopneumothorax.
 - a. What imaging do you next need to perform. (I wasn't sure whether this meant CXR after emergency thoracocentesis or chest drain; or contrast CT chest, so I wrote both, in order).

8. Photograph of an (elderly?) torso with bruise L upper chest/clavicle, L elbow and blue, swollen L forearm. There was said to be no bony injury, but absent L radial pulse.
 - a. What urgent investigation(s) would you carry out?(eg coag, FBC. Might have included angiography, with or without CT; or measurement of compartment pressures).
 - b. What abnormality(s) can you see and what 2 causes can you suggest.(? compartment syndrome in L forearm or occlusion/dissection L brachial artery; L axillary artery avulsion/dissection/occlusion)
 - c. What operative management may need to be performed? (Emergency fasciotomy L forearm; emergency CT angiography of the thorax with a view to repair).
 - d. Can you think of any pre-existing factor that may have influenced the development of this complication? (Warfarinisation, previous operation, such as harvest of radial artery for bypass graft; cervical rib)

9. Trauma Xray of a foot and ankle with 'lateral tenderness'.
 - a. What abnormality do you see? (Subluxation of the cuboid. Some also saw a fracture line).

10. Biochemistry results of young patient with hypotension, confusion, vomiting. Showed, amongst other things, markedly raised glucose, raised K, low Na, low HCO₃, low Cl. Normal Ca, slightly raised creat, urea.
 - a. Calculate the anion gap.(Raised).
 - b. How do you account for the result. (Diabetic ketoacidosis).
 - c. What other biochemistry test would you request? (ABG)
 - d. How would you initially treat the patient.(How much did they want? Oxygen; treat for shock, then rehydration with 0.9% saline; intravenous actrapid via sliding scale, checking BM every 10-15 minutes and regular electrolytes; accurate fluid balance; high dependency nursing; search for focus of infection etc.)

11. Elbow Xray of 10 year old boy after trauma, (suboptimal views presumably due to the nature of the injury).
 - a. What abnormality(s) do you see? (effusion, supracondylar fracture, ?dislocated capitellum. Some also wondered if medial epicondyle was displaced).
 - b. What complications may occur?.(Neurovascular, particularly median and ulna nerve lesions; vascular compromise - brachial

artery at elbow - check distal pulses/capillary return to reduce risk of Volkmann's ischaemic contracture; osteoarthritis/stiffness/loss of function).

- c. What ossification centres can you see? (Visible was capitellum, radial head and ? medial epcondyle. The others weren't. NB ossification centres appear later in boys).

12. ECG rhythm strip. Showed broad complex tachycardia.

- a. What makes you think it is VT? (Broad complex; tachycardia; (likely to be lead II in which case) left axis deviation; fusion beat; capture beat).
- b. You elect to cardiovert under appropriate sedation. What energy levels would you use for the first 3 shocks? (Different answers between candidates - 100J, 200J, 360J is what the ALS manual says).
- c. This fails. What would you try next? (Answer not clear. ? optimise oxygenation, electrolytes including K, Mg, Ca, pH. Consider drugs eg lignocaine, amiodarone, magnesium iv).
- d. This fails. What else would you try. (Answer unclear ? change pads/paddles, paddles position, disopyramide. Try cardioverting after loading with amiodarone. The best answer was probably overdrive pacing)..

13. Patient transferred to your unit after trauma. CXR showed diffuse pulmonary shadowing.

- a. What is the most likely diagnosis? (? pulmonary oedema. Could be secondary to fluid overload. Differential could have been diffuse pulmonary contusion. Less likely to have been ARDS, since the scenario they gave was of an acute injury).

14. 2 photos of a pair of hands, in patient with a L breast lump.

- a. What abnormality of the hands do you see? (Strangely, some of the changes seemed to be bilateral. Guttering, wasting of hypothenar eminence, finger clubbing, ? slight yellowing of the fingers (lymphatic involvement or smoking - depending on whether you thought the nails were yellow, and how many of them. Changes were more marked in the left hand)

Next picture was the patient's CXR. Showed L apical collapse/consolidation, but no obvious rib involvement.

- b. What abnormality(s) do you see?
- c. What is the explanation for the clinical findings? (Brachial plexus involved; possibly lymphatics (depending on your answer to above). In retrospect, I think the lung mass must have been the primary, and the breast lump unrelated to the hand appearances, since carcinoma of the breast does not cause finger clubbing).

15. Picture of the hand of a milkman who had fallen over onto broken glass, and had been asked to make a fist. Laceration at base of thenar eminence. Little and ring fingers flexed at DIP and PIPJs. Index: DIP and PIP remained straight (? Flexor digitorum profundus and superficialis divided); middle: DIP flexed, but PIP straight, (profundus intact but superficialis divided).? Thumb also not flexed as much as would be expected.? Damage to thumb flexors as well

- a. What structures have been divided?
- b. What other structures would you check? (Nerves, vascular, thumb).

16. In a major incident:

- a. What essential information is required to convey to the receiving hospital? (Location, hazards, approx numbers dead, injured; which emergency services required).
- b. Who is responsible for removing the dead bodies at the scene? (If definitely dead, I believe this is the responsibility of the police acting on behalf of the coroner).
- c. Under which 2 circumstances would you remove the dead urgently? (If body presented a hazard to the rescuers - eg lying on a power line, or a live underground rail; or to allow rescue of a live casualty).

These questions are based on our memory of the exam, and the answers that we (or others) gave. They may not be correct, but I hope they give you some idea of the sort of questions that may be asked!

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