OSCE JCM 7 May 2014

A&E PWH

(Answer)

Question 1.

(1) What is the most important piece of information from history and how it could determine severity of food poisoning?

- Delayed gastrointestinal symptoms after 6 hours → more severe toxicity/ hepatic toxicity with amatoxin; gyrometrin; orellanin-containing mushroom.

(2) What is the most common presentation for wild mushroom poisoning reported in Hong Kong?

- Gastrointestinal irritation of vomiting and diarrhea.
- Self limiting disease and respond to symptomatic treatment.

(3) Name a most well-known mushroom poisoning that is fatal

- Amanita (phylloides) with hepatotoxicity.

(4) What medications are probably useful?

- Multiple dose activated charcoal
- Silibinin / silymarin
- High dose penicillin
- N-acetylcysteine

(5) What is the last resort of treatment?

- Liver transplant.

Question 2：

(1) What investigation was performed?

- USCOM/ Ultrasonic cardiac output monitor

(2) What principle does the investigation use to give results?

- Continuous wave Doppler ultrasound to measure blood flow across heart valves

(3) What route of measurement was used in the above and what is the landmark for that route?

- Pulmonary/ para-sternal route: probe placed at 3th-4th space close to sternum, aiming at right shoulder.

(4) From the investigation result, what is the hemodynamic state of the patient (with reason) and what is cause for low bp?

- Increased minute distance → hyperdynamic circulation
- Low SVR (or SVRI) → in vasodilated state
- VpK – measure of left ventricular contractility was high
- Increased CO (or CI) → not in heart failure
- Septic shock

(5) In view of the hemodynamic status, how would you manage the patient if the BP continues to drop? (4 marks)

- Intravenous fluid
- Intravenous antibiotics
- Vasopressor
- Search for and treat source of (intra-abdominal) sepsis

Question 3.

(1) What are the abnormal findings in CT?

- Right renal cyst.
- Hypodense shadows in bilateral psaos.
- Some gas at L2 vertebral body.

(2) What is/ are the diagnosis?

- Psaos abscess
- Suspected spondylitis/ vertebral osteomyelitis

(3) What physical test regarding limb movement may show positive sign, and how to perform the test?

- Psoas test would show positive psoas sign – the patient lied on one side. Passive extension of thigh with knee extended would cause abdominal pain. (Due to stretching of psoas muscle).

(4) What are the recommended treatments?

- CT guided aspiration of psaos abscess.
- Intravenous antibiotics for at least 3 weeks.
- Surgical operation for spine instability, neurology or failed conservative therapy.

Question 4

(1) List the most salient ECG abnormalities

- RBBB/ positive R in V1/ widened QRS
- ST elevation in aVR

(2) For the ECG, list 1 non-cardiac and 3 cardiac differential diagnosis

- sodium channel blocker (e.g. tricyclic antidepressant) overdose
- left main stem (LMS) AMI
- proximal LAD AMI
- severe triple vessel disease

(3) What else can the ECG do to differentiate the cause? (1 mark)

- ST ↑ in aVR > ST ↑in V1 → LMS obstruction rather than proximal LAD obstruction
- (Perform right side ECG to see if there is RV infarct)

(4) Concerning the clinical picture, what are the specific treatments?

- antiplatelet/ aspirin
- primary PCI
- consideration of CABG

Question 5.

(1) List the CXR abnormalities.

- left hydropneumothorax/ left pneumothorax + left pleural effusion
- surgical emphysema in the right neck

(2) What procedure will you perform?

- Left chest drain insertion

(3) If in the above procedure, you see food bolus coming out, what will be your provisional diagnosis provided the procedure was performed correctly?

- Boerhaave syndrome/ spontaneous esophageal rupture.

(4) What is the proposed mechanism for the disease?

- Sudden increase in intra-esophageal pressure, e.g. severe vomiting/ Valsalva manoevre.

(5) Name one confirmatory investigation for the provisional diagnosis.

- CT thorax (+ abdomen) with contrast
- Water soluble esophagram

(6) What are the managements provided the diagnosis is confirmed?

- Fluid resuscitation and electrolyte balance
- Broad-spectrum antibiotics
- Surgical operation

Question 6.

(1) What view was it?

- Apical (5 chamber) view

(2) What abnormalities were shown and what are the mechanisms?

- Increased right ventricle (RV) size/ RV bigger than left ventricle (LV)
  - RV, which is thin-walled, dilates in response to acute increase in pulmonary pressure
- McConnell sign/ hypokinesia of RV mid-free wall that spare the apex
  - Localized ischemia of RV free wall as a result of increased wall stress

(3) What is the provisional diagnosis?

- acute pulmonary embolism

(4) What other features may be present in the above diagnosis with the performed investigation?

- Tricuspid regurgitation
- D-shaped LV in parasternal short axis

(5)) What specific therapy is required for the above patient?

- Thrombolytic therapy