

## 05/06 MKSAP Questions

9:30-10:15 Lecture 1: Dr. Sher, Introduction to Chest Radiography

10:15-11am Lecture 2: Dr. Esparza, ABG Interpretation

11:30- 12:15 Lecture 3: Dr. Shamsid-Deen, Pulmonary Hypertension

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1. A 72-year-old patient is evaluated for worsening dyspnea on exertion. They have a longtime history of cigarette smoking.

Chest radiograph is shown.



Which of the following is the most likely abnormality seen on this frontal chest radiograph?

- A. Hilar Adenopathy
- B. Interstitial Lung Disease
- C. Mediastinal Mass
- D. Prominence of the pulmonary arteries

2. An 81-year-old man is evaluated for chronic thromboembolic pulmonary hypertension after presenting with 5 months of gradually worsening exertional dyspnea.

Evaluation, including echocardiography, ventilation-perfusion imaging, and CT angiography, suggests the diagnosis of chronic thromboembolic pulmonary hypertension. Subsequent right heart catheterization confirms the presence of precapillary pulmonary hypertension.

The patient is evaluated at two pulmonary hypertension centers of excellence and is deemed not to be a candidate for pulmonary thromboendarterectomy or balloon pulmonary angiography.

In addition to lifelong anticoagulant therapy, which of the following is the most appropriate treatment?

- A. Riociguat
- B. Sildenafil
- C. Trepostinil
- D. No additional treatment

3. Which physical examination sign would you expect in this patient?



- A. Left sided bronchial breath sounds
- B. Tracheal deviation
- C. Right sided chest hyper-resonance to percussion
- D. Finger clubbing
- E. Normal examination findings

4. A 72-year-old man is evaluated for exertional dyspnea of 1 year's duration and recent onset of orthopnea. He has diabetes mellitus, hypertension, and coronary artery disease. Medications are atorvastatin, aspirin, lisinopril, metoprolol, and metformin.

On physical examination, blood pressure is 150/82 mm Hg; the remaining vital signs are normal. Jugular venous pressure is elevated. An  $S_3$  is present. Pulmonary examination reveals occasional crackles. There is 2+ pitting edema to the knees.

A chest radiograph shows an enlarged cardiac silhouette and pulmonary vascular congestion.

An echocardiogram reveals a left ventricular ejection fraction of 20% and a right ventricular systolic pressure of 50 mm Hg.

Which of the following is the most likely cause of the patient's pulmonary hypertension?

- A. Chronic thromboembolic pulmonary hypertension
- B. Idiopathic pulmonary arterial hypertension
- C. Interstitial Lung Disease
- D. Left Ventricular Failure

5. A 46-year-old patient is evaluated in the emergency department for a 2-day history of confusion and multiple episodes of loose stools daily. They have Crohn disease and have undergone previous abdominal surgeries, including resection of portions of their small intestine. Medications are azathioprine, adalimumab, vitamin D, and ferrous sulfate.

On physical examination, temperature is 37.2 °C (99.0 °F), blood pressure is 104/76 mm Hg, pulse rate is 98/min, and respiration rate is 20/min. Oxygen saturation is 96% with the patient breathing ambient air. Multiple abdominal surgical scars are noted. They have slurred speech and are confused.

**Labs:**

pH: 7.28

PCO<sub>2</sub>: 30mmHg

Albumin: 3.0g/L

BUN: 28mg/dL

Creatinine: 0.9mg/dL

Na: 138 mEq/L

K: 3.6 mEq/L

Chloride: 106 mEq/L

HCO<sub>3</sub>: 14mEq/L

Glucose: 104 mg/dL

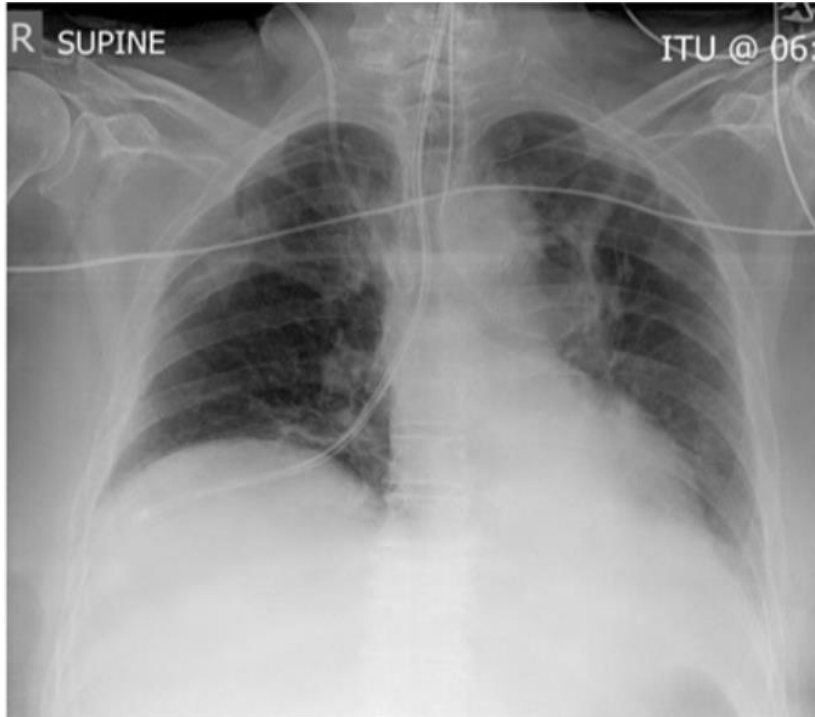
Lactate: 1.4

Serum Osmolality: 290 mOsm/Kg H<sub>2</sub>O

Which of the following tests is most likely to establish the diagnosis?

- A. B-hydroxybuterate
- B. D-lactate measurement
- C. Methanol measurement
- D. Urine anion gap measurement

6. What interventions should be taken based on this chest imaging?



- A. Advance ETT tube
- B. Readjustment of IJ Central line
- C. Readjust Feeding tube
- D. ARDS net ventilation
- E. CT Chest