Module Respiratory System CBL

Learning Objectives

1. To learn types & mechanisms of hypoxia
2. To learn common causes of sudden onset of Chest pain
3. To learn common causes of acute shortness of breath
4. To learn mechanism of hypoxia responsible for acute pulmonary embolism

Clinical Case

A 50 year old lady recently diagnosed as Carcinoma Breast presented to Emergency Department with sudden onset of sharp pain in left side of the chest just below the nipple; aggravated with inspiration. There is blood in sputum with acute shortness of breath as well. Pulse is regular 110 beats/min with 110/70 mmHg without significant difference in both arms. Respiratory rate is 30 breaths/min. and is afebrile. She is hypoxemic with partial pressure of arterial oxygen (PaO2) on room air of 55 mmHg. Chest auscultation was normal with no added sound. CVS was normal. Peripheral pulses (arterial) are palpable. ECG revealed increased heart rate otherwise normal. Ventilation Perfusion Scan revealed a defect in perfusion (Q) with normal ventilation (V) (i.e. the defect is mismatched V/Q) consistent with pulmonary embolus).

1. What are the differential diagnoses of sudden onset chest pain?
2. What is the anatomic basis for “sharp localized chest pain”?
3. Coin the term for blood in sputum and name few causes of it?
4. Name the mechanisms for Hypoxemia. Which is the principle mechanism of hypoxia in this lady?
5. What is pleural effusion?
6. in which settings pleural effusion can occur?
7. what are common causes of inflammatory pleural effusion?
8. Q what are noninflammatory pleural effusion