8/12/26 Morning Report with @CPSolvers

"One life, so many dreams" ***Case Presenter****: Nguyen (@)* ***Case Discussants****: Sharmin (@) & Kirtan (@)*

https://clinicalproblemsolving.com/present-a-case/

Scribing (Magnus):

CC: 61M presenting to ER with chest pain

HPI: 2 hours prior acute-onset mid-sternal sharp CP. Similar episode day before. The pain did not worsen with exertion.

Oxygen saturation noted around 86%, improved to 100% with a non-rebreather mask

ROS: No SOB, N/V

PMH:
HTN
HLD

Meds:
Amlodipin
Olmesartan
HCTZ

Health-Related Behaviors:
Smoking, 40 pack years
Alcohol use disorder, one bottle of whiskey daily

Vitals: T: 36.6 **HR**: 105 **BP**: 130/91 **RR**: 22 **Sat**: 93% on 10L

Exam: low body weight

Otherwise wnl

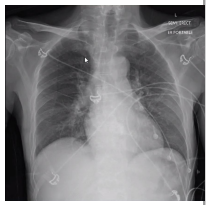
Notable Labs & Imaging:

Hematology:

WBC: 7.6 Hgb: 13.5 Plt: 157 MCV: 105

Chemistry:

Na: 142 K: 2.6 Cl: 101 Ca: 8.7 BUN: 8 Cr: 0.7 Glu: 105



pH 7.43 pCO2 36 Lactate 4.4

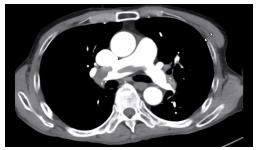
Troponin T: 189 -> 171 (nl <19)

Imaging:

EKG: Sinus tachycardia 104 bpm, nonspecific ST/T-wave changes, no acute ischemic changes

D-dimer 11,405

CTA: Large saddle embolus. Left apical nodule Right apical mass



Venous duplex: Right DVT

Bronch and EBUS with biopsies showing adenocarcinoma (left upper lobe) and squamous cell carcinoma (right upper lobe)

Dx: Pulmonary embolism 2/2 concomitant adenocarcinoma and squamous cell carcinoma of the lungs

Problem Representation: 61 yo male, with relevant history of smoking habits and alcohol use disorder, presents with hyperacute chest pain and hypoxemia. Physical exam is notable for slight tachycardia and Spo2 93% on 10L. He is found to have trop ~190, hipoK 2.6, and saddle PE + squamous cell carcinoma and adenocarcinoma of the lungs.

Teaching Points (Lourenço)

- **Approach to chest pain** - before anything else, rule-out emergent causes (4 + 2 + 2 schema). It's key to confirm the time course and try to see if there's additional symptoms that can focus the approach. When emergent causes are ruled-out, use an anatomical framework to guide the work-up. Don't forget the structures near the chest, that can present as chest pain.
- **Hyperacute chest pain + hypoxemia** - if related, the hypoxemia localizes the chest pain to cardiopulmonary structures. The onset of the pain points to specific mechanisms of diseases: blockage, rupture or electrical chaos. The degree of hypoxemia might be a clue, since most causes of chest pain only cause severe hypoxemia when the presentation is ultra severe.
- **Disconnect with the physical exam and ECG** - in the context of severe chest pain, we divide it as ACS or non-ACS, i.e., is the ECG suggestive of STEMI? If not, then CT angio is needed, since it can diagnose all emergent causes of chest pain, besides coronary diseases.
- **Low BMI and low ions** - most likely malnutrition, especially in the context of alcohol use disorder. IN the context of chest pain, it's important to correct the lytes, in order to lower the risk of VTach.
- **Sneaky lactate** - think of type A and type B lactic acidosis. In the absence of overt shock, rule out end-organ ischemia. If type A is ruled out, think of thiamine deficiency in the context of alcohol use disorder. Correct it and reassess to see what's left.