12/13/23 Morning Report with @CPSolvers

*"One life, so many dreams" **Case Presenter**: Mariana Escobar(@) **Case Discussants**: Sharmin (@Sharminzi) and Jack (@jackpenner)*

CC: Chest pain while exercising

HPI: 38 yo M started to have chest pain since 5 days ago after a fall while in exercising, which was initially in the left shoulder and progressed in intensity. He experienced the pain episodes for the past 4 days, which lasted 1-3 hours per episode. He had 3-4 episodes per day. The day before, the left side chest pain became worse. He never had the similar symptoms before.

ROS: no headache, SOB, cough, the pain does not exacerbate with breath. No bleeding, ROM normal. He generally feels well except for the chest pain

PMH: no, history of cholecystectomy

Meds: no

Fam Hx: no

Soc Hx: Born and raised in Colombia, incarcerated for years, denies alcohol or cigarette use

Health-Related Behaviors: **no**

Allergies: no

Vitals: T: 36.1 **HR:** 64 **BP:** 128/76 **RR:** 16 SpO2 95%@RA, BMI 14.5

Exam:

Gen: pallor, anxious about the pain

HEENT: pale conjunctiva, no LAD

CV: RRR, no murmur

Pulm: clear **Abd:** no distension **Neuro:** nl

Extremities/skin: Pulse palpable bilaterally

Notable Labs & Imaging:

Hematology:

WBC: 6.2 Hgb: 9.1, MCV 91.8 Plt: 488k

Chemistry:

Na: 141 K:4.67 Cl: 106 BUN: 11.5 Cr: 0.75

Bili 2.3 (direct 1.02)AST: 32 ALT: 64 Alk-P: 196 GGT 202 Albumin: 3.9

Troponin: nl CRP: 1.54

TT 19.5 PTT 28 INR 1.2 lipase 50, amylase nl

HIV neg, VDRL neg, hepatitis panel neg

Ret 5.5%, G6PD nl, Hgb electrophoresis: HgS 85.1% (suggesting sickle cell disease)

Imaging:

EKG: sinus rhythm 67, no pathological finding

CXR: no fracture, lung clear

Chest CT: increased cardiac silhouette. No infiltrates in lungs. Bilateral fibrotic scarring with few peripherally distributed nodules in both lung base.

Echocardiogram: normal LV function, EF 61%, tricuspid regurgitation, increased pulmonary artery pressure of 37 mmHg, Right function nl, no pericardial effusion

Dx: Pain crisis in sickle cell disease triggered by trauma

Problem Representation: 38 yo M with history of cholecystectomy presented with chest pain after trauma. He was found to have normocytic anemia, abnormal liver function test and TR with pHTN.

Teaching Points (Promise):

Approach to chest pain: consequence of fall vs cause of fall. complication of trauma → rib fracture vs exertional nature increases chance of cardiac causes. Must rule out AD, ACS, PE, PTX (4+2+2). Other causes include esophagus vasospasm, gastritis/PUD, esophagitis, coronary spasm, Takotsubo, thoracic, aortic aneurysm, zoster.

-trauma to upper abdomen can also cause referred shoulder/chest pain

-Young pts with chest pain impt to consider FH of early CAD

-h/o incarceration: r/o infectious causes (TB, HIV, syphilis, hep)

-Non-reproducible, non-pleuritic, non-positional CP less likely MSK causes

Pallor and low BMI: anemia and underlying causes? Malnutrition, sickle cell disease

Normocytic anemia + thrombocytosis

- **Reactive vs primary:** reactive 2/2 IDA or hemolysis → iron panel, hemolysis labs, Hb electrophoresis
- **Other causes:** hemoglobinopathies, hematologic malignancy, infiltrative involving liver+cardiac, chronic inflammation

Increased pulm arterial pressure → PTH ddx

- Group 1 idiopathic, connective tissue diseases, congenital
- Group 2 and 3 less likely given no underlying HF/cardiac or lung diseases; Group 4 clots; Group 5 sickle cell disease, sarcoidosis, MetS

TR thickening: carcinoid tumor, Ebstein anomaly

Sickle cell disease

-vasoocclusive pain crises (dehydration, infx, trauma, any stress), ACS, cholecystitis, acute sickle hepatopathy, anemia, PE, splenic sequestration

-tx: analgesic, FA, hydroxyurea

Given hemoglobinopathies more common in Latin America and with HbS and HbC being most common → national screening

-workup anemia in young person

-90% pts in columbia have cholesterol gallstones due to high-fat diet