7/6/25 Morning Report with @CPSolvers

***"One life, so many dreams" Case Presenter**: (Glen) **Case Discussants**: (Youssef@saklawiMD) & (Noah@Noah_Nakajima)*

Scribing (Seeme)

CC: 41 y old M with two days of SOB and chest pain

HPI:sharp CP, rated 7/10, non-radiating, worse lying down, better leaning forward. was well until 3 months ago, had unintentional weight loss and HIV positive, then got initiated on anti retrovirals.

ROS:
no orthopnea, palpitations, syncope , no sweating , no nausea and vomiting

PMH
newly diagnosed HIV

Meds:
tenofovir, emtricitabine, dolutegravir

Fam Hx:
Not significant

Social Hx:
Single father of 1, builder

Health-Related Behaviors:
smoker with 17 pack years

Allergies: NKDA

Vitals: T: 34.6 BP: 89/49 **HR**: 110 **RR:** 44 **Sat:**88% improved on oxygen

Exam: Gen: Middle-aged male, cachectic, ill-looking, seated leaning forward

HEENT:distended neck veins and JVP 5 cm above sternum

CV: weak regular pulses, peripheries cold to touch, pulsus paradoxus(SBP: 89 to 70 inspiration. Apex beat not palpable, muffled heart sound, no murmurs

Pulm: using accessory muscles for breathing, symmetric chest rise

Abd: nl

Neuro: nl

MSK: nl

Notable Labs & Imaging:

Hematology:
WBC: Hgb: 9.8 Plt:100 MCV:98

Chemistry
Na: 134 K:4.1 Cr:1.93 BUN: Ca: Ph: Mg: Glu: Cl: HCO3: AG:
CRP: ESR: LDH: AST: 1167 ALT: nl ALP:12 GGT:48 INR:2.8 Bili:7 protein 52 albumin: 21.8
-Urine lam: positive
Pericardiocentesis: drained 400 ml of straw-colored fluid
TB culture: AFB negative, culture still pending
ADA: 36

Imaging:
EKG:low voltage
Echo:showed a large pericardial effusion

Patient was given IV fluids and improved on ATT and steroids.

Dx: **massive effusion and TB pericarditis**

Problem Representation: 41 year old M with history of HIV presented with SOB and chest pain for 2 days. Pain was worse on lying down and better on leaning forward associated with pulsus paradoxus and JVD.Echocardiogram confirmed presence of a massive effusion.

Teaching Points (Vini): Approach to Chest Pain

- **4 + 2 + 2: Cardiac**: ACS, Aortic dissection, Tamponade, Takotsubo. **Pulmonary**: PE, Pneumothorax. **Esophageal**: Rupture and impaction.
- **HIV**: lower CD4 = more immunocompromise. T cell deficiency - intracellular organisms, virus, fungi, parasites, TB.
- **Positional, sharp pain**: consider pleura (PE, pneumonia, pleuritis, infectious pericarditis, effusion, cholecystitis, subphrenic abscesses, Fitz-Hugh-Curtis) vs mediastinum. DDx: uni vs bilateral
- **Hypoxemia**: anatomical - blood vessel, alveoli, interstitium. 5 buckets of hypoxemia: hypoventilation, V/Q mismatch, OSA, OHS, HF, etc. Approach, ABG, CXR, non invasive ventilation - NC, BiPAP.
- Mnemonic categories of shock. S: Septic, H: Hypovolemic, O: Obstructive, C: Cardiogenic.
- Assess Beck's triad: Hypotension, Muffled heart sounds, JVD.
- **Most common malignancies in HIV that causes pericardial tamponade**: Kaposi sarcoma, Non-Hodgkin lymphoma.
- **The most common cause of pericardial effusion** is idiopathic in the general population. **In HIV, the most common cause is TB** - but varies accordingly to epidemiology.
- Is this pericardium + lung problem? Is this IRIS? recent initiation of antiretrovirals. Time window for IRIS: 2 to 12 weeks. The majority: 4-8 weeks.
- Malignancy related pericardial effusion is the most likely etiology to result in tamponade.