10/29/25 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter:*Hee Mun* ***Case Discussants***: *Sharmin(@Sharminzi) and Prof Reza(@RxDxEdu)*
https://clinicalproblemsolving.com/present-a-case/

Scribing (Manaswini)

CC: 45 year old presented with 2 days of sharp left sided chest pain and shortness of breath

HPI: SOB worse when lying flat, and relieved on sitting up. She recalled brief fainting episodes in recent weeks that resolved on their own.
She reported right lower back pain, fatigue, mild cough, low grade fever and oliguria

PMH: Heart Failure
HTN
Intravenous heroin-2 months back
SABE- subacute bacterial endocarditis

Meds: Spironolactone - not adherent

Fam Hx: Brother died suddenly at 18

Social Hx: African American- living in a rural area with no access to medical checkups

Health-Related Behaviors: Cigarette smoking

Vitals: T: 37 **HR:** 74 **BP:** 103/74 **RR:** 24 **Sat:** 92% **BMI:**
Exam: Gen: Ill appearing
HEENT: JVD, No thyromegaly, or cervical adenopathy
CV: Systolic murmur at left sternal border louder with inspiration and standing
Pulm: Basilar crackles at the bases
Abd: Protuberant with fluid wave, mild hepatosplenomegaly and right CVA tenderness
Extremities/skin:B/L lower leg edema

Notable Labs & Imaging:
Hematology:
WBC: 9.1 Hgb:13.8 Plt: 206 ESR: 28
Trop: 0.15(elevated) , BNP-800, Cr-2.3, Glu-152, AST- 840, ALT-543 Albumin-3
UA: Trace proteinuria
Chest X-ray: marked cardiomegaly and pulmonary edema
ECG: diffuse ST-segment elevations with PR depressions
Echo showed large pericardial effusion with RA collapse, RV dilation, pulmonary HTN, TR, and mild MR.
LVH with preserved EF 65%;
Blood culture- Negative
Pericardial Window- 965ml drained, Biopsy showed- acute fibrinous pericarditis without infection or malignancy
Treated with NSAID and colchicine
One day later, new AFib and incomplete RBBB appeared.-> later respiratory failure → intubated;
CXR: bilateral infiltrates;
ABG pH 7.28, $PaCO_2$ 48 mmHg, PaO_2 52 mmHg (on 100% O_2), HCO_3^- 21 mEq/L, Lactate 2.8 mmol/L
Swan CVP 38 mmHg PA 60/30 mmHg, PCWP 30 mmHg, CO 2.2 L/min, CI 1.5 L/min/m^2, SVR 1500 dyn·s/cm^5, SvO_2 48%
Despite dobutamine and epinephrine for elevated CVP and bradycardia, she developed severe refractory bradycardia leading to pulseless arrest and death.
Post mortem - Enlarged heart with septal hypertrophy, partial right ventricular thickening, and right heart dilation with tricuspid enlargement from chronic overload.Microscopy showed marked myocyte hypertrophy and disarray in both ventricles.

Dx: Hypertrophic cardiomyopathy masked by a large hemorrhagic pericardial effusion leading to fibrinous pericarditis, tamponade and cardiogenic shock

Problem Representation: 45 year old female with heart failure, hypertension, and prior Iv heroin use presenting with 2 days of pleuritic chest pain with sob, fatigue, low grade fever and poor medication adherence, with elevated troponin, BNP, diffuse ST elevations and PR depression on EKG and large, right pericardial effusion

Teaching Points (Eyron)

I. <u>JVD and crackles</u>
-Could be secondary to HF since JVD correlates with increased R pressure which could be secondary to increased L sided pressure

II. <u>Lancisi sign</u>
-Prominent JVP 2/2 fusion of the C wave and V wave → suggestive of tricuspid regurgitation

III. Worsening murmur with decreased preload could be secondary to HOCM

IV. New onset ascites → paracentesis should be done to rule out any kind of infection or could be secondary to cardiac cause; check SAAG

V. <u>Pericarditis</u>
Friction rub = visceral and parietal serosa rubbing together
However, in the presence of an effusion there will not be a friction rub

VI. <u>Effusive-constrictive pericarditis</u>
Most common etiology: Tuberculosis
Non-TB causes: irradiation, cardiac surgery, autoimmune (RA, SLE, ankylosing spondylitis)

VII. <u>For the development of further symptoms post-pericardial window</u>:
Check for expected complications of procedures:
-Did something happen in procedure leading to these complications?
Consider diagnostic accuracy:
-Did we biopsy the right spot?

VIII. Low Cardiac Index → Suggestive of cardiogenic shock etiology

IX. <u>Mavacamten</u>
Medication used in HOCM against myosin in cardiac myocytes to decrease cardiac contractility