8/30/23 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Ayesha Ghoto (@AyeshaGhoto) Case Discussants: Jack Penner (@) and Sharmin Shekarchian (@Sharminzi)

CC: 48 yo female with a syncopal episode

HPI: she had a syncopal episode when she was working at home and stayed unconscious for some time. She has had exertional dyspnea for the past three months. Denied jerking or tongue biting.

PMH: HTN

Meds: Amlodipine

Fam Hx: HTN, DM

Soc Hx: Non-smoker, drinks alcohol occasionally

Health-Related Behaviors: none

Allergies: none

Vitals: HR: 75 **BP:** 110/70 **RR: SpO2 99% in RA**
Exam:
Gen: awake and alert, moist mucous membranes
HEENT:
CV: normal S1 and S2; 2/6 diastolic murmur, no JVD
Pulm: clear to auscultation
Abd:
Neuro: unremarkable
Extremities/skin: no edema

Notable Labs & Imaging:
Hematology:
WBC: 10 Hgb: 11 Plt: 450

Chemistry:
Na: 143 K: 3.9 Cl: 89 BUN: 18 Cr:1.06 glucose:170 Ca:9.2 Mag: 2.2
AST: nl ALT: nlAlk-P: 1.04 Albumin: 4.0
GFR 28
Troponin 23 (normal)
proBNP: 250

Imaging:
EKG: normal sinus rhythm, right axis deviation
CXR: unremarkable
Echocardiogram: LA mass measuring 4x2 cm attached to the interventricular septum with movement along the mitral valve.

Dx: Cardiac myxoma obstructing blood flow through mitral valve.

Problem Representation: 48 yo female presenting with syncope, exertional dyspnea, and a 2/6 diastolic murmur on physical exam. Echo showed LA mass obstructing blood flow through MV.

Teaching Points (Mark):
CC: **Syncope episode**
-Before you enter the world of syncope, consider the ddx of transient loss of consciousness
-Is this syncope or a syncope mimic?
-**4S's:** Syncope, stroke/TIA, sugar, seizure
-All have distinct signatures (prodrome with vagal, positional with orthostasis, etc) → history is key!
-**Syncope:** reflex, orthostasis, cardiac (structural vs arrhythmia)
-Also consider autonomic dysfunction 2/2 medications (Alpha blockers, anti-hypertensives)/ DM/PD, another consideration is low volume state.
-Each bucket of syncope has distinct features on history
-Dyspnea increases the likelihood of cardiac syncope
-Features of cardiac syncope: host vs syndrome
Host:
1. Hx of CAD/CHF
2. Hx of conduction abnormalities
3. Family hx of sudden cardiac death

Syndrome:
4. Exertional dyspnea
5. Supine syncope
6. Palpitations

-Now the exam…
-Normal heart rate does not rule out arrhythmia, many are intermittent, therefore place patient on telemetry and get an ECG
-Knowing a patient's baseline BP is important - could be relative hypotension/hypertension w/ a "normal BP"
-**Diastolic murmurs:** always pathologic, stenosis (tricuspid or mitral) or regurg (pulmonic or aortic)
-Now the labs….
-**BNP**: original studies were used in ED to determine if patient's dyspnea is from HF → so heart is on the hook now w/ elevated BNP
-PE is a underappreciated cause of syncope in patients admitted for syncope (17% in 1 study!)
-TTE showed a mass near the mitral valve concerning for atrial myxoma
-Atrial myxoma causing physiology similar to MS