12/15/23 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Bob Centor (@medrants) Case Discussants: Rabih (@rabihmgeha) and Reza (@DxRxEdu)

CC: 64 y/o male brought to the ER after a syncopal event.

HPI: At 4 am he was walking to the bedroom from the kitchen, and the wife heard him fall and found him. On site, he was clammy, diaphoretic, with rigid eyes and a blank stare with foaming at the mouth. Had urinary incontinence, was unresponsive for 10 minutes therefore EMS was called. Awake, lethargic, and confused for 20 minutes. Patient found quickly after he fell by wife. They did not see any obvious seizure activity. Upon awakening, prior to the episode patient was experiencing chest tightness. Never experienced this before. Normal glucose, as per EMS.

PMH: Hypertension

Meds:

Fam Hx: unremarkable

Soc Hx: unremarkable

Health-Related Behaviors: unremarkable

Allergies: NKA

Vitals: T: 97.5 **HR:** 77 regular **BP:** 149/106 (did not vary from arm to arm) **RR:** 16 **SpO2**: 98%

Exam:
Gen: Orthostatic blood pressure changes found at ER
CV: mild tachycardia
Pulm: Clear to auscultation bilaterally, no wheezes and crackles
Abd: nl
Neuro: nl
Extremities/skin: nl

Notable Labs & Imaging:
Hematology:
WBC: 6 Hgb: 15.9 Plt: 161k

Chemistry:
Cr: 1.1
Troponin: 0.9 (0.3 upper limit of normal)
UA: 2+ protein

Admitted to hospital and 5 hours after arrival → troponin 5.5/ 5 hours later troponin → 4.5 & pro BNP 68.

Imaging:
EKG: Normal
POCUS: Grossly normal LVEF, possibly a dilated RV and RA, IVC obscured by bowel gas, no B lines found on lung POCUS
Echocardiogram: S1Q3T3
CT Head: unremarkable

Dx: **Pulmonary thromboembolism**

Problem Representation:
64 y/o M presents with PMH of hypertension presents with a syncope episode. Vitals remarkable for hypertension (BP 149/106). ECG and cardiac POCUS showed signs of R-heart strain.

Teaching Points (Umbish): **SYNCOPE or SEIZURE???**

- ★ **Rule out seizure**- post-ictal confusion, urinary incontinence
- ★ **AMS> N-MIST> Neurologic, met., inf., structural, toxins**
- ★ When index of severity is high> evaluate for seizure and syncope simultaneously! **Morbidity higher in SYNCOPE!**
- ★ Syncope eval. more rapidly productive vs seizure
- ★ **Immediate tests:** EKG, POC Glucose,Troponins, Steth exam for AS, CT head plus CT Chest with contrast to look for two PE's (acute pul. embolus vs pericardial effusion)
- ★ **Need for telemetry** incase there's another episode of LOC
- ★ Chronic pul htn> heart adapts with RV wall thickness! If absent its acute pul HTN.
- ★ **Cardiac syncope**> structural vs arrhythmogenic cause> assess with **CT chest with contrast** or ECHO> cardiac(AS,MS) vs pericardial issue (PE, effusion- more morbid!!!)
- ★ **POCUS: RV Dilation>** Volume or pressure overload of the RV, RV cardiomyopathies or RV infarction.
- ★ **S1Q3T3> PE**
- ★ **Diaphoresis major clue** in Hx towards PE! High predictive value! (Uncle Bob!)
- ★ **Risk stratification** once PE identified: Lovenox preferred over DOACs if the risk is intermediate
- ★ **F/U:** keep an eye out for complications: post pul. Embolic syndrome, recurrent VTEs