02/25/21 Morning Report with @CPSolvers

***Case Presenter**: Kiara Camacho (@kiaracamacho96) **Case Discussants**: Priyanka Athavale (@pri_athavale) and Ana Clara Miranda(@ana_miranda4)*

CC: Chest pain

HPI: 44yF presents to ED w/2 days of progressive chest pain and pressure that radiates to back, neck and L arm. Pain associated w/ profuse diaphoresis.

Had been having headache for the past year associated with pulsatile tinnitus. HA improved with tylenol.

PMH:
1y ago HTN, fibromyalgia.

OB/GYN: no HTN disorders or cardiomyopathy in pregnancy.

Meds:
ACEi.

Fam Hx:

Soc Hx: Peruvian. Married w/2 children.

Health-Related Behaviors:
Doesn't consume alcohol, tobacco, drugs.

Allergies:

Vitals: **T**:afebrile 36.8 **HR**:82 **BP**:152/102 **RR**:20 **SpO_2**:
Exam:
Gen: not well appearing.

Notable Labs & Imaging:
Hematology: non contributory.

Chemistry: Liver and Renal Function non contributory. Coag panel normal.

Troponin T: 2960 (nl <0.014), pro BNP 1055 (nl<125).

CRP: 1.25 (slightly elevated), ESR 35 (nl: 0-25).
Complement, ANA, anti dsDNA, cryoglobulin, ANCA: neg.
UA: neg.

Imaging:
EKG: sinus rhythm, ST elevation V1 - V3.
CXR: Clear lungs. Normal mediastinum. No pneumothorax or pleural effusion.
TTE: LVEF 35%, apical and septal akinesis.

Cath lab: tortuous L anterior descending artery w/decrease in caliber after septal branch consistent w/ spontaneous coronary artery dissection.

CT: narrowing and tortuosity of both iliac arteries and renal arteries. Stenosis of extracranial portion of carotid and vertebral arteries. Head CT not performed.

Final DX: STEMI from a LAD SCAD secondary to FMD.

Problem Representation: 44yF recently diagnosed with HTN p/w acute chest pain and long standing HA w/pulsatile tinnitus. Diagnosed w/SCAD of the LAD artery and widespread narrowing of multiple vessels.

Teaching Points (Gabi Pucci): **#WDx #Bossladies**

- Chest pain: we must exclude **emergency causes**. Myocardial infarction/ischemia: pain looks like a pressure, radiates to the left arm and neck. Natural course: more acute than this presentation (2 days).
- Other causes: lung/musculoskeletal/GI problems
- Emergent causes: 4 (cardiac) +2 (pulmonary)+2 (GI) (4/2/2 rule)
- 4 cardiac causes: 1) Acute coronary syndrome (myocardial infarction). Order EKG and troponin. 2) Aortic dissection: radiation for the pack and neurological symptom (headache). Order CT scan with contrast. 3) Cardiac tamponade: order Echo. 4) Takotsubo cardiomyopathy. Order Echo/EKG.
- 2 pulmonary causes: 1) Pneumothorax. 2) Pulmonary embolism
- 2 GI causes: 1) esophageal rupture - order CT/Chest X-ray. 2) Food impaction
- Approach to HA: look for red flags to decide if imaging is needed.
- Pulsatile tinnitus: associated with vertigo, vomiting (absent in the case). Vascular etiology can cause it - AV malformations /aneurysms?
- EKG ischemia: ST elevation (clot in the vessel/aneurysm/vasculitis), T inversion. Try to localize in which coronary artery it fits. Pericarditis: diffuse ST elevations.
- Young woman with new onset HTN and fibromyalgia and headache - abnormal vasculopathy (heart + brain). Vasculitis / Fibromuscular dysplasia?
- High diastolic pressure -> EtOh consumption, meds, sedentarism, high Na diet
- Myocardial infarction: chest pain, EKG changes, elevated troponin, and arteriography showing an abnormality in the coronary. Plaque rupture / Coronary artery dissection
- Medium-vessel vasculitis: Kawasaki's' disease (usually children) and Polyarteritis nodosa (GI symptoms eg)
- Large-vessel vasculitis: Giant-cell arteritis and Takayasu's arteritis (usually in elderly)
- Fibromuscular dysplasia: arteriography showing "string of beads" in renal, cerebral arteries. Can treat with antiplatelet medication and heart failure medications (ejection fraction 35% without full recovery)