04/29/21 Morning Report with @CPSolvers

Case Presenter: *Donald Chang (@donald_chang)* ***Case Discussants***: *Colleen McGourty (@colleenmcgourty) and Maarten Claes*

CC: SOB and L extremity swelling

HPI: 39M no past cardiac Hx, SOB, edema, and fatigue.
4 months ago: Present to ED, w/ unrevealing workup, normal Chest X Ray and discharged w/ albuterol.
2 months ago: Twice to ED due to cough, SOB, fatigue without diagnosis. Then, worsening dyspnea, ortopnea, PND, peripheral edema
2 days ago: Edema legs, scrotum, abdomen and come to ED.
Denies: Sore Throat, vertigo, sputum production, chest pressure discomfort or palpitations neither syncope.

PMH: Bipolar disorder, depression, tonsillectomy.

Meds: Albuterol, diphenhydramine

Fam Hx: Great uncle died 39 of stroke. Other member died for HF. Grandmother, AF, MI, and stroke.

Soc Hx: Alcohol use disorder (significant), also tocabbo 15y 2 packs/day. Now electronic cigarettes.

Health-Related Behaviors:

Allergies: Sulfas

Vitals: **T**: 97.6 **HR**: 110 **BP**: 126/92 **RR**: 18 **SpO_2**: 96% room air
Exam:
Gen: no distress
HEENT: JVP 2 cm above sternum
CV: Nl rate, RR, intact distal pulses, no gallp. Murmur 2/6 diastolic left upper sternal border.
Pulm: Nl, bilat crackles prominent bases.
Abd: Nl
Neuro: Nl
Extremities/Skin: Edema 1+ bilat ankles.

Notable Labs & Imaging:
Hematology:
WBC: Nl Hgb: Plt:
Chemistry:
Na: 142 K: 3.8 Cl:102 CO2: 29 BUN: 16 Cr: 1 glucose: 84 Ca: Nl
Phos: Nl Mag: Nl BNP: 1574 HIV: -ve Thyroid profile: Nl, covid 19 -ve,
Imaging:
EKG: Sinus tachy, L atrium enlargement, no ischemic changes.
CXR: Non specific, bilateral base lung opacities. No pleural effusion.
TTE: Reduced EF 31%, severe LA enlargement, moderate mitral regurgitation, moderate Ao regurgitation, severely dilated ascending Ao, PA systolic pressure 48.
CT w/ contrast: Ao dissection entire Ao starting from Ao root to Iliac Artery extended to neck vessels. Abnormal flow ascending Ao (false/true lumen).
Negative for connective tissue disease.
Final Dx: Sub-acute Stanford type A Idiopathic Ao dissection.

Problem Representation: Young adult w/ remarkable cardiac familiar history presents with signs of congestive HF. Examination reveals Ao and mitral valve regurgitation with severe Ao dilation on imaging studies.

Teaching Points (Sukriti):
Investigating the Sx:
- When faced w/ multiple Sx, look for clues to form an operating diagnosis, anchoring on a Dx too early could be a potential pitfall
  - Dyspnea: Cardiac, pulmonary >>
  - Volume overload: Cardiac, hepatic, renal pathology
  - Orthopnea and PND specific to HF
- Base rate prioritises CAD in HF, use young age and rapid time course as a modifier (childhood disease w/ delayed presentation)

Looking for Clues:
- Psychiatric co-morbidities, think about the patients access to healthcare
- Alcohol - Thiamine deficiency, dilated cardiomyopathy, atrial fibrillation, endocrinopathies in young, genetic cardiomyopathies
- Jvp good indicator of cardiac pathology; kidneys silent on exam, is there any stigmata of CLD suggestive of liver pathology?

Framing a hypothesis: Multiple valvular pathology + aortopathy
- Involvement of multiple valves - valve failure, endocarditis, rheumatic heart disease, tying in the Aortic pathology prioritises >> functional valve failure
- Non inflammatory aortopathy - older (smoking, HTN), young (4 - bicuspid aortic valve, marfan's disease, Ehrler's Danlos, familial dissection syndrome) vs inflammatory aortopathy (Takayasu's, giant cell arteritis, syphilis)