04/22/21 Morning Report with @CPSolvers

Case Presenter: *Alec Rezigh(@ABRezMed)* ***Case Discussants***: *Simone Vais (@SimoneVais) and Rabih Geha (@rabihmgeha)*

CC: Dyspnea on exertion

HPI: 60F dyspnea w/ exertion. She reports 1 mo admission for COVID pneumonia req high flow nasal cannula, Tx long period steroids, discharged to rehab facility on couple Lt of O2. oxygen. No O2 needed on discharge from rehab facility.
Developed dyspnea at home while working around, SpO2 at home 80%.
Cough productive of white sputum since 1 mo no hemoptysis, no change.
B/L LE edema +
No fever, chills, rash, diarrhea, orthopnea

PMH:
CAD - stents (5 years ago)
AI hepatitis,
RA
HTN
Mild aortic stenosis (Dx ECHO 2yrs)
T2DM

Meds:
Prednisone,
Azathioprine

Fam Hx:
Nothing significant

Soc Hx:
No recent travel, no sick contacts, not currently working

Health-Related Behaviors:
Doesn't drink alcohol/smoke

Allergies:
No known allergies

Vitals: **T**: **afebrile** **HR**:93 **BP**: 107/74 **RR**:20 **SpO_2**: 98% RA at rest → 84% ambulation → 90% 2 Lt **BMI** 40
Exam:
Gen: Awake, no distress,
HEENT: difficult to assess JVD w/ habitus
CV: Regular rate and rhythm
Pulm: Clear to auscultation, no wheezes
Abd: Soft, non distended no stigmata of cirrhosis
Neuro: No FND
Extremities/Skin: No rashes, trace LE edema

Notable Labs & Imaging:
Hematology:
WBC: 7.8 Hgb: 9.8 MCV 96 Plt: 165

Chemistry: Normal
SARS-CoV-2 PCR: negative BNP: 46 (<100) D-Dimer 6.8 (0.3-0.5) LDH 350 (<270)
UA: No hematuria/proteinuria

Imaging:
EKG: Sinus tachycardia
CXR: Interstitial pulmonary edema, haziness in both LL - atelectasis/dev inf
ECHO:EF 70% - Mild diastolic dysfunction, AS mild and stable compared to prior ECHO, no valvular ab, RV size function normal, IVC 5mmHg (0-5)
CT PE: No PE, diffuse GGO, interlobar septal thickening (sequela of COVID inf) w/ superimposed interstitial edema
PJP sputum - +
Dx: Pneumocystis Pneumonia

Problem Representation: Elderly female w/ AI hepatitis, RA, cardiovascular risk factors and recent h/o COVID-19 pneumonia p/w subacute dyspnea on exertion, diffuse lung parenchymal GGO, anemia, elevated D-dimer and LDH

Teaching Points (Rafa):

- **60F W/ DYSPNEA ON EXERTION**
  Most common etiologies - heart (HF/ valvular abnormalities like aortic stenosis) / lung dysfunction (PNA, pulmonary HTN)
  Less commonly - anemia, acidosis, neuromuscular weakness, obesity (obesity hypoventilation syndrome), hyperthyroidism
- **EDEMA**
  Heart (could explain the dyspnea, especially w/ the ACS history) / kidney (nephrotic syndrome)/ liver (cirrhosis) / lymphatic obstruction (malignancy / congenital problems / infections (filariasis)
  PE / history: important to distinguish the etiology
- **RA**
  Symmetric joint involvement - small joints / spares DIP
  Systemic symptoms - fever, weight loss, anemia
  Extra articular manifestations - Eg, lung
  Pulmonary nodules + ILD (more common in men, positive RF, undertreated patients) + caplan syndrome + pleuritis + tracheal stenosis- everything but pulmonary HTN
- **HYPOXEMIA**
  Make sure to rule out false hypoxemia like methemoglobinemia
  Alveoli (singing - filled w/ blood, pus,collapsed)/ vasculature (pulmonary HTN) / parenchyma (ILD)
  Worsening w/ exertion - problem more likely to be on the vasculature - especially if the alveoli are not singing!
- **GGO + infection** - post-COVID, PJP pneumonia, viral infections - everything under the sun but pyogenic bacteria
  PJP pneumonia especially in the setting of steroid use / immunocompromised patients / and elevated LDH