8/25/23 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Dr. Sam Fahmy (@SFahmyIN) Case Discussants: Rabih (@rabihmgeha) and Reza (@DxRxEdu)

CC: 62M to hospital w/ 3 weeks dyspnea on exertion

HPI:
On morning of admission, had difficulty walking from parking lot to office. Coworkers called 911. O2 sat high 80s-low 90s, placed on 4L O2 and transferred to hospital. POC glucose nl. Recent 20 lb weight loss over 6 weeks.

PMH: HTN

Meds: lisinopril

Fam Hx: HTN

Soc Hx: assistant store manager, no recent travel/sick contacts, no pets, no sexual contact w/ men

Health-Related Behaviors: no smoking hx, no alcohol

Allergies: NKDA

Vitals: T: HR: 88 **BP:** 134/87 **RR:** 20 **SpO2** 98% on 3L O2
Exam:
HEENT: PERRL
CV: no JVD, RRR no murmurs
Pulm: bibasilar fine rales
Abd: benign, no masses/tenderness
Extremities/skin: no LE edema

Notable Labs & Imaging:
Initial data:
WBC: 5000 Hgb: 13.5 Plt: 252
Na: 140 Cl: 106 BUN: 9 Cr: 0.7
CXR: nl

Clinical course: thought to be viral illness but could not wean off O2 > CT chest > admitted for HF due to CT read, proBNP 480 (H)
CT chest: bilateral dependent interstitial opacities suggestive of pulmonary edema with surrounding GGOs; bilateral enlarged axillary lymph nodes

Further workup:
HIV positive, viral load >2 mil, CD4 count 54
Syphilis negative
Viral panel negative for coronavirus, etc.
Beta d glucan positive
BAL: DFA negative for PJP, smear positive for PJP

Final diagnosis: PJP ISO new HIV diagnosis

Problem Representation: 62M w/ new HIV diagnosis presents with 3 week history of dyspnea on exertion found to have parenchymal infiltrative disease and bilateral axillary lymphadenopathy

Teaching Points (Ayesha):
- CC: Patients language can hint at the time course/severity. Dyspnea on exertion - incompatible with this pt's time course.
- **SOB**: subjective, **Hypoxemia**: objective (either present or not).
- **Stepwise process:** 1. Confirm it's really hypoxemia (true, not artifact), 2. Once diagnosed, is the exam (bibasilar rales) positive? (to localise site of pathology) 3. Obtain Chest X Ray, are the findings suggestive of hypoxemia? If not, is it a vascular issue (PE, shunting - less likely because oxygen improved patient's state.
- Rales: substance in the alveoli/collapsed lung (atelectasis) causes rales - is it because of **water**? (less likely if JVP is normal & edema) **pus**? (unlikely - no fever, febrile symptoms) **Cells/Blood?** (cannot be determined if it's cells/blood through x-ray) - wouldn't get it in this situation - only got it due to it's easy accessibility. Doesn't help make progress.
- **Xray** - Only if pretest probability was high for water and pus - you can stop here. If low pretest probability, move on to a CT.
- GGO seen: Consider Interstitial lung disease (Ask pt if there was an exposure)
- Lymphadenopathy seen on xray: likely endogenous disease. Bilateral axillary lymph nodes (disease of breast/arm → might have lymph nodes elsewhere - disseminated lymphadenopathy (consider due to malignancy) → get biopsy (but exclude infection beforehand - mononucleosis (EBV, CMV, **HIV** - most common given the s/sx), syphilis, granulomatous infection (SLE, sarcoidosis). –> Do HIV testing.
- ***Possible Suggestion***: CT Scan: performed if there's a presence of hypoxemia in unknown site in an acute situation.
- Presence of HIV: always go back to history taking, even if s/sx don't add up.
- Low CD4 count - worry about PJP (start pt on TMP/sulfa while waiting for BAL), CMV, toxo