11/27/23 Morning Report with @CPSolvers

"One life, so many dreams" **Case Presenter**:*Dr. Laura Granados* **Case Discussants**: *Dr. Basak Coruh (@basakcoruhUW) & Dr. Mira John (@miraonthewallMD)*

CC: 52 yo woman **SOB, acute diarrhea, failure to thrive.**

HPI: Past several weeks- **SOB** and **orthopnea** -outside ED- bacterial pneumonia txd w abx, symptoms have not resolved. She presented to the OP and was noted to be very sick. Went to the ED, SOB on exertion and had a chronic cough ; she has been having **non bloody diarrhea and multiple bowel movements (5/day).** No abdominal distension, rashes, facial flushing. Symptom onset is not immediately after initiation of polyamine agent. Jan 2022: First immunotx. Last cure April 2022. Last received immunotherapy 1 year ago

PMH: Malignant mesothelioma of the abdomen pleural bx neg.

Meds:
Several courses of chemotherapy (ipilimumab and nivolumab, carboplatin, paclitaxel, bevacizumab.On a 'polyamine mimic' currently.
Bactrim
Acyclovir
Statin

Fam Hx: No notable family history

Soc Hx: Hasn't worked for many years ; had a desk job previously; no travel history ; no homelessness, not incarcerated.
No notable occupational exposure / exposure to pets

Health-Related Behaviors:
Does not drink or smoke

Allergies: none

Vitals: T: 38.3ºC **HR:** 120/min **BP:** 87/68 (MAPs below 60's, none-responsive to fluids) **RR:** -. spO2: high 80s corrects with 4L nasal cannula.

Exam:
Gen: Ill appearing and thin.
HEENT: JVP - elevated
CV: Tachycardic. Up to 120s. No abn. Heart sounds.
Pulm: No wheezing, crackles ++
Abd: Soft, nontender and nondistended
Extremities/skin: 3+ LE edema bilaterally. No skin rash. Well perfused, warm.

Notable Labs & Imaging:
Hematology: WBC: 5k Hgb: 8.4 (baseline) Plt: 121
Chemistry:
Na:128 K:4.5 Cl: 100 BUN: Cr:1.6 (baseline 0.8) glucose: 90s, HCO3: 22
AST: normal ALT: normal Alk-P: normal Albumin:
Troponin- 1 (rechecked 3 hours later - 9); peaked at 15 BNP - 500s
Lactate - 1.5 Viral respiratory panel - negative ; Infectious panel and blood cultures: Negative
Cytology: Abnormal cells (consistent with mesothelioma)
HIV neg.
Imaging:
EKG: Non specific ST-T changes (diffuse), no signs of ACS.
CT: BL pleural effusions & New solid mass (prior imaging: nodules with ground glass opacities)
Echocardiogram:Dilated right ventricle (POCUS) ; LV - barely moving (compared to prev ECHO one year ago - which was normal) ; RV dilation and systolic dysfunction of RV ; LV - EF - 15%, no valvular abnormalities, right atrial pressure - 5-10, PASP - 45mm Hg, small pericardial effusion
Cardiac MRI: Severely reduced systolic function, right ventricular dilation, subepicardial enhancement , myocardial edema
Dx: Myocarditis 2º to study drug (checkpoint inhibitor)

Problem Representation: 52 yoF w/ PMH of abdominal mesothelioma s/p immunotherapy and chemotherapy presented with chronic diarrhea, SOB, and symptoms of HF

Teaching Points (Tansu):
Initial additional Qs: CP, SOB at rest, diarrhea bloody/watery, Wheezing, flushing, abd dist? Med hx. Check immune status. Time course: chronic diarrhea (e.g. in HIV pts), chronic cough, acute SOB. Unifying dx's: Inflammatory, infectious, malignancy, rheumatologic?
Malignancy hx → Chronicity of symptoms: **Is it related to cancer, cancer tx, or an infection 2/2 to cancer directed tx.?**
SOB + cough → Immunotx side effect: Lung tox., cardiotox.. Exposures, ppx for opportunistic infs, med adherence? Remember undiagnosed asthma, GERD for chronic cough. Good exam & imaging (esp in immunocompromised), add viral in immuneX host to fungus, parasites. Shock index: HR/SBP (normal: 0.5-0.7, >1 concerning).
Fever → Infections, inflammation (organizing pne) // **Edema + JVP + orthopnea** → Do bedside echo // **High BNP + Trop uptrending** → DDX: Toxicity from study drug (not likely 2/2 time course). Myocarditis or primary cardiac event? Assessment of shock: Doubled Cr (end organ hypoperf), cardiogenic vs. distributive (fever).
In PCCM → Dx + Tx simultaneously→ blood, sputum cx, enteric pathogen panel, start on broad spect. abx., check HIV status.
Nodules: Size, distribution (hematogenous vs. lymph), location (upper vs. lower), nocardia, MTB, rhodococcus, GPA, rheumatoid.
DDX (Randomly distributed dense nodules): Septic emboli, malignancy (though lung mets are smooth & circular), fungus (halo sign: dense opacity surrounding GGO), how long has it been there? **New GGOs in the setting of malignancy:** infection, fluid, malignant progression, tx side effects, non-infectious etios. → Cover for Bacterial pne.+ hemodynamic support + family meeting for the grim prognosis.
Weigh the benefit of high dose steroids for study drug side effects vs. possibility of infectious etiology in the patient.