03/22/24 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Zakariyya(@) Case Discussants: Reza(@DxRxEdu) and Rabih(@rabihmgeha)

CC: hypotension

HPI: 30yo M with remote h/o malaria presenting as a rapid response for hypotension

Reporting fevers without improvement with antibiotics for approx 2 weeks prior to presentation. Otherwise, none known in the setting of rapid response.

PMH:
Malaria >10 years ago

No sx h/o

Meds:
N/A

Fam Hx:
N/A

Soc Hx:
N/A

Health-Related Behaviors:
No smoking or illicit substances

Allergies:
N/A

Vitals: T: 40.1C **HR:** 117 **BP:** 77/41 **RR:** 28, 97% on RA

Exam:
Gen: young man, sitting comfortably, in NAD
HEENT: conjunctival pallor, no icterus, no cyanosis
CV: bounding pulses, no JVD, apex non-displaced, normal S1,S2, systolic murmur in RUSB
Pulm: few coughs, lungs CTAB throughout
Abd: soft, nontender, slightly distended, moderate hepatosplenomegaly
Neuro: AOx3, no FND
Extremities/skin: not cold to touch, warm, well-perfused, no clubbing, generalized diffuse LAD

Notable Labs & Imaging:

Hematology:
WBC: 1.99 Hgb: 6.1 with MCV 86 Plt: 26
Lymphopenia on the differential
Smear: normocytic anemia, with occasional tear drop cells, RBC fragments, occasional microspherocytes. Reactive lymphocytes without blasts.

Chemistry:
Na: 129 K: 4.5 Cl: HCO3:22 BUN:wnl Cr: 0.84 glucose: Ca: 7.66 Phos: 2.79
AST: wnl ALT: wnl. T bili: wnl Alk-P: wnl Albumin: 23g/L; total protein 69 g/L
LDH 421, haptoglobin nml
B12, folate, TSH wnl
Lactate 1.0. ABG 7.55/33/70.1
INR 1.46. PTT 21.9. Fibrinogen 5.2. D-dimer borderline elevated
ANA, ANCA neg
EBV IgG /IgM- CMV IgG +/IgM-
PVB19 neg. HCV neg. HBV neg. Malaria neg, RPR neg, Crypto antigen neg
Sputum: AFB neg, TB PCR neg, cx neg
HIV +
Trigs 3.07 (elevated) ferritin (1127 → 3000s). CD4+ of 6.
Lymph node biopsy: reactive lymphocytes
Bmbx: hypercellular marrow, with increased histiocytic activity and hemophagocytosis. Gram stain neg. Culture negative for TB. Positive for AFB. Bone marrow PCR + for mycobacterium avium complex

Imaging:
CT CAP: early pulmonary edema with bilateral pleural effusions, supraclavicular, abdominal LAD, massive HSM, ascites

Dx: HIV and HLH secondary to mycobacterium avium infection

Problem Representation:
30yoM with fevers, hypotension, fth worsening hypotension w/ LAD, HSM, severe pancytopenia with TBC/spherocytes, fth pulmonary edema, effusions with supraclavicular LAD, HSM, ascites

Teaching Points (Umbish): **HYPOTENSION!**:(

- ★ Vital signs are vital! **Recheck vitals**! Check bp in both arms! Start IV fluids! Activate rapid response.
- ★ **Touch extremities**- cold(cardiogenic or hypovolemic), sepsis> check PP> if narrow> hypovolemic state
  If **wide PP> distributive** cause
- ★ **Elevate legs**!!! Critical to understand the kind of shock to guide management
- ★ **Bedside tests**> ekg, troponin, lactate, blood culture.
- ★ **shock**> cells don't have enough nutrients to undergo aerobic met.> **cardiogenic, distributive, obstructive, hypovolemic**. **Shock and sepsis are different!!!**
- ★ Arterial vs venous hypotension-localise the source!
- ★ Microscopic(skg) vs macroscopic (echo) issue
- ★ Normal JVP rules out venous hypotension!
- ★ **approach to lymphadenopathy:** Inflammatory vs congestive vs infectious vs infiltrative
- ★ One imp test here> **HIV test!**
- ★ If you have Pancytopenia, schistocytes, elevated LDH> consider **MAHAs** (TTP,HUS,DIC)
- ★ Consider secondary **HLH**
- ★ Need for BM biopsy if the labs and data doesnt reveal a cause for CBC abnormalities
- ★ Hypovolemic or vasoplegia
- ★ Next steps: trace all steps go backwards! Iatrogenic causes need to be looked into!
- ★ Lymphoma vs castleman's