8/01/22 Morning Report with @CPSolvers

***Case Presenter**: Valeria Roldan (@valeroldan23) **Case Discussants**: Dr. Tony Breu (@tony_breu) and Dr. Margret Lie (@MargaretL16)*

CC: 37yM w/ fever and rash

HPI:
-recent diagnosis of HIV, fever for last 3 weeks,
-Anorexia, malaise, 30 pound weight loss within 3 weeks
-Rash started on trunk

Soc Hx:
Husband; no new partner in last 5y

Health-Related Behaviors:
No alcohol or tobacco; midwestern US; no travel in last 5y

PMH:
Unremarkable,

never been on HAART

Vitals: **T**:103.1 F **HR**:107 **BP**:138/84 **RR**: **SpO_2**: 96% RA
Exam:
Gen: cachectic, ill-appearing
HEENT: anterior cervical LAD, no erythema or exudates of throat
CV: tachycardic, no murmurs
Pulm: normal
Abd: soft, non-tender, hepatosplenomegaly
Extremities/Skin: no LE edema, skin: blanching macular rash on abdomen & proximal extremities

Notable Labs & Imaging:
Hematology:
WBC: 2.1 Hgb: 8.8 Plt:77
CD4-count 7; HIV viral load: 789.000
Chemistry:
Na: 128 K:3.6 BUN:18 Cr: 0.7
AST: 88 ALT: 91 Alk-P: 683 T. Bili: 1.2

IgG HepA, IgM neg; Hep B neg., HepC ab and RNA neg
Syphilis ab neg, Tox IgG neg, Quantiferon indeterminate
Urine Tb PCR neg,

Fibrinogen 77, INR 1.5, LDH 4836, Ferritin 33.000;
ADAMTS13 activity normal

PBS: intracellular capsulated yeast

Blood cultures: pos. Histoplasma capsulatum
Imaging:
CXR: prominent perihilar lymph nodes

Final dx: Disseminated Histoplasmosis w/ HLH

Problem Representation: A 37yM w/ a recent dx of HIV p/w fever, 30lbs weight loss and blanching macular rash for 3 weeks, never been on HAART. PE notable for cervical LAD and hepatosplenomegaly.

Teaching Points (Samy):

- Fever: I MADE, prioritize infection, HIV broadens the DDx, more prone to common infections, but also rarer
- +Rash: infections (mononucleosis, measles, tick-borne, syphilis, TSS, iE, endemic fungi), autoimmune (collagen vascular disease, vasculitis, AoSD), malignancy (lymphomas, leukemias), drug-reactions (DIHS, SJS, AGEP)
- Macular rash: mononucleosis syndromes (EBV, CMV, HIV, toxo), syphilis and drug reactions (usually itchy)
- Weight loss in a pt with HIV? Opportunistic infection, malignancy or directly HIV-related (wasting syndrome)
- MCD: HHV-8 associated in HIV, plasma cell dyscrasia or idiopathic w/ b-symptoms, diffuse LAD, anasarca, HSM, skin findings (cherry hemangiomas)
- Pancytopenia: peripheral destruction (HIV, SLE, CLL), splenic sequestration (port. HT), bone marrow problem (stem cell, nutrients, myelophthisis)
- Isolated alkaline phosphatase elevation? Check for bony causes (usually painful), if liver the cause (usually painless) mostly through infiltration of periportal fields (granulomatous dz vs. liquid cancers). Syphilis and GCA can also present that way!
- Identify and acknowledge your knowledge gaps -> Opportunity to learn and improve your knowledge and express humbleness and encourages others to do the same!
- Unclear LAD? Pursue serologic testing, but consider getting an excisional lymph node biopsy (>>fine needle aspiration, lower yield for lymphoproliferative dz)
- STDs travel together -> check for HIV, chlamydia, gonorrhea and syphilis
- High LDH: hemolysis, WBC turnover (spontaneous in leukemias, but also after treatment) and organ necrosis (lung, liver, kidney, spleen, muscle, vessels in TMAs)
- Hyperferritinemia: mostly caused by hepatocellular injury (hepcidin deficiency -> increased Fe-absorption from GIT and release from RES)/massive inflammation, only rarely HLH
- HLH (⅝ criteria), calculate H-Score, think of as a symptom, ø a disease (mostly caused by lymphomas), but also SLE, AoSD, HIV, endemic mycoses, CAR-T-therapy, congenital, etc.