02/21/25 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Leul Yosef(@) Case Discussants: Rabih(@)

CC: 32 Y/M fever and weight loss of two months

HPI: fever, chills, global headaches, loss of appetite, N/V, non bilious, non bloody, intermittent loose stools twice a day.

Lost 18 kgs from baseline. Seen by other doctor, thought to have typhoid(not specified)

ROS: Negative

PMH: Hepatitis B(not worked up)

Malaria multiple episodes, last episode was 15 yrs

Meds: None

Fam Hx:None

Soc Hx: Capital Addis

Health-Related Behaviors: **no illicit drug use,**

Allergies:None

Vitals: T: 38.7c BP:78/45 - 100/65 **RR:** 20 **HR**: 115-130 **Sat: 94% on RA**
Exam: Gen: Acutely sick
HEENT: pale conjunctiva, No LAD
Neck, CV, Pulm: Normal
Abd: Hepatomegaly 3 cm below costal margin, splenomegaly 6 cm below costal margin
Neuro: normal **MSK:** trace B/L pedal edema

Notable Labs & Imaging:
Hematology:
WBC: 3.9(N: 37%, L: 52.5) Hgb: 10.3 Plt: 37K Hct: 30.6 MCV: 73.1
Chemistry
Na: 130 K: nl Cr: 0.96 Ca: nl Mg: nl Glu: Nl Cl: nl
ESR: 30 LDH: 1012 AST: 55 ALT: 71 ALP: 89 Bili: Nl(0.97, 0.44)
Albumin 2.3 Total protein 6.5 Uric acid 0.2 (low) PT 14 PTT 42 INR 1.2
HbsAg, HBV viral load- 824, HIV, VDRL: Negative. UA: Nl, ANA negative
Imaging:
CXR: Nl -> blunting of right costophrenic angle
USG: Hepatomegaly and splenomegaly; CT: Hepatosplenomegaly.
Blood, urine cultures,Thick and thin: Neg
PBS: Normochromic, normocytic, thrombocytopenia. BM aspiration: slight erythroid predominance, trilineage hematopoiesis, no blasts

Provided supportive care. Continued to have fever, started on Vancomycin +ceftazidime. Sx persisted despite broad spectrum, febrile, RR: 24, Sat dropped to 90%, **decreased air entry and dullness over right lung base**l. Switched to meropenem, Vancomycin, Cefepime, Treated for brucellosis. Repeated blood and urine: -
Leishmania antibody: Negative.
CT chest: B/l basal lung GGO, interlobular septal thickening, minimal pleural effusion, small solitary LN, enlarged liver & spleen, S/o: Pulmonary edema
BM biopsy: Hypercellular 90%, erythroid hyperplasia, infiltrates of mononuclear cells, IHC: CD43 positive erythroid lineage with normoblastic to megaloblastic maturation.
Ferritin: 2000, Triglycerides: 640, Hscore: 223(98% probability)

Dx : Hemophagocytic Lymphohistiocytosis.

Problem Representation: Subacute reticuloendothelial disease with fever complicated by bone marrow infiltration Dx as HLH.

Teaching Points(Khashayar):
Subacute inflammation -> 4Ws
Who?(Are they immunocompromised?)
When? Exact time course of the disease -> subacute
Where? Epidemiological location and study of their exposures
What? The localization of the disease -> Reticuloendothelial localization -> hematologic system involvement with liver and the spleen being our focal points.
Hypoxemia -> check that your pulse oximeter is working right and the reading is not noise of hypotension -> cardiopulmonary vs …
Pancytopenia
Acute ***S***ystemic disease -> peripheral destruction (tick borne diseases)
Substances -> toxins, medication -> toxic vs withdrawal -> MTx, alcohol, b12, …
Stem cell issue -> leukemia, etc.
Space occupying lesion in the marrow -> metastatic cancer, lymphoma, granulomatose process -> highly likely -> organism vs internal -> mycobacteria(TB and non TB), bartonella, brucellosis, histoplasmosis, leishmaniasis have tendencies to invade the marrow -> negative bone marrow then what? 50% of the initial biopsies are initially negative -> check the cultures, evaluate the need for repeat biopsy
Splenomegaly -> marrow failure leading to increased hematopoiesis vs spleen sequestration(leishmaniasis)
Hypercellular bone marrow -> is the spleen on the line? Spleen marginal zone lymphoma , hairy cell leukemia, mycobacteria(TB and non TB), bartonella, brucellosis, histoplasmosis, leishmaniasis
HLH should be considered, and ferritin levels checked, in patients with sepsis like critical illness that does not respond to adequate empirical treatment.