02/29/24 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Shreyas (@shreyas_rn) Case Discussants: Alec (@ABRezMed) and Rabih (@rabihmgeha)

CC: 50 yo F presenting with 1 week of worsening SOB and black tarry stools

HPI:
SOB insidious in onset and gradually progressed over the last 3 months.
3 months of worsening abdominal distention.
2 weeks prior: diagnosed with COVID-19 pneumonia and black stools, resolved 2 days prior.
1 week prior: gastroenteritis, now resolved.
1 day prior: yellow discoloration of eyes.

She also had frequent hospitalization since May of 2023 due to **polyuria, polydipsia**, and fevers, recurrent. During her previous admission she was diagnosed with complicated UTI and treated with nitrofurantoin. ROS was otherwise negative.

PMH:
HTN
DM2

Meds:
Amlodipine
Sitagliptin
Metformin

Fam Hx: None

Soc Hx: No tobacco, no alcohol

Health-Related Behaviors:

Allergies: NKDA

Vitals: T: 101.3 F **HR:** 110 **BP:** 110/70 mmHg **RR:** 28 SpO2 89% RA
Exam:
Gen: Palor, icteric sclera.
HEENT: Right sided palpable non-tender anterior cervical LAD, facial rash.
CV: RRR, no murmurs. **Pulm:** Crackles bilaterally.
Abd: Spleen tip palpable at the level of the umbilicus.
Neuro: Mildly decreased patellar reflexes bilaterally.
Extremities/skin: BL pitting edema, mid thigh. Petechial and maculopapular rash diffusely.

Notable Labs & Imaging:
Hematology:
WBC: 12k Hgb: 9.5 Plt: 95k MCV: 82

Chemistry:
Na: 149 (Previous Na 155 Uosm 115, water deprivation, after desmopressin 770) K: 3.7 Cl: 113 HCO3: BUN: 15 Cr: 0.68 Ca: 9.8
T. bili: 0.5 AST: 30 ALT: 22 Alk-P: 70 Total protein: 6.5 Albumin: 2.5
HbA1C 7.0 Total cholesterol 252 LDL 142 VLDL 73 Triglycerides 265 Total CH/LDL 6.8
ESR 60 CRP 7.16
Iron: 34 TIBC normal Transferrin elevated TSAT >55% Ferritin 3000
Hep B, C, HIV, ANA, ANCA, Dengue, Malaria, Dengue negative.
FSH 10 (low limit) LH 1.48 (low) Early morning cortisol low TSH normal Vit D 98 normal T3 normal Prolactin normal
Fibrinogen low UA normal LDH 93 normal Uric acid normal

Imaging:
CXR: lobar consolidation lower lobe.
Echo: EF 60%, normal BC: no growth
USG lungs: mild to moderate right sided pleural effusion. USG neck: LAD 2.5 cm
USG abd: Hepatomegaly, highly heterogeneous, massive splenomegaly 22.5 cm multiple spleen infarcts.
Lumbar spine lytic lesions with sclerotic margins, non-ossifying fibroma.
FNA: granulomatous LAD, small lymphocytes with nuclear grooves.
Brain MRI: Absent pituitary bright spot, no stalk enhancement.
Autopsy: Reactive BM. Fungal negative. Large ovoid histiocytes.

Final Dx: Langerhans cell histiocytosis.

Problem Representation: 50 YR F, with PMH HTN, DM presented with SOB, Abdominal distention, black Tarry stools. o/e pallor, icteric, palpable LN, Splenomegaly till the umbilicus, crackles BL, petechial rashes , Labs/imaging: Hypernatremia. Lobar consolidation, High Ferritin, low Albumin, hepatosplenomegaly. Unfortunately Patient died, and autopsy revealed langerhan cell histiocytosis.

Teaching Points (Kuchal):
1. SOB: base rate is involvement of cardio-pulm system.But with .Abdominal Distention (a) hepatic hydrothorax, (b)Ascites can push the diaphragm up can be pushed up
2. Patients complaints and your observation -& the overlap would help in synthesizing what the actual problem is. # Important # when there are too many things going on. **Multiple system invol: ?? vasculitis.GPA, ? Lymphoma, Langerhan cell Histiocytosis. TB. ?other granulomatous disease. Histoplasmosis; Histiocytic disease have strong tropism for Pituitary. ?Rosai Dorfman disease. Coccidiomycosis. Endemic mycoses. Or is the person having an underlying malignancy complicated with an infections.**
3. **Large Spleen upto umbilicus : r/o Leishmaniasis, Lymphoma.** (but LDH is not elevated.)
4. **Na: 149: Hypernatremia: E**xcess water loss compared to intake. If the patient has access to water, they should be able to overcome the water loss; ?encephalopathy, ?confusion, ? Hypothalamo pituitary lesion, Central DI, ? ADH resistance, or deficiency, ?endocrinopathy, ?idiopathic, ?associated systems or syndromes associated with it.
5. Infiltrative Disease of the brain: (a) meningitis : subacute meningitis, (b) Pituitary. MRI would be important to r/o
6. Low fibrinogen levels: ?due to Hepatic disease, ?PHT. Smear would be helpful. Splenic infarcts: ? is it bcos of the size, and compromised blood supply, or actually due to a vascular issue.
7. Infection: Degree of liver, BM involvement is outlier. ?Tropism for Pituitary: Cancer, AI (sarcoid, Histiocytic). Infections is Rare.- But negative Pituitary imaging is outlier for the infiltrative Disease.