01/20/24 Morning Report with @CPSolvers

***"One life, so many dreams" Case Presenter**: UNC IM Residency Program(@) **Case Discussants**: Yazmin (@minheredia), Debora(@deboracloureiro) and Jasdeep (@*

CC: 19 M presents to the ED with fever and headache.

HPI: Presented a week back with fever and URI symptoms 1 week back as well. Intermittent headache associated with lightheadedness and dizziness.
Also complains of neck pain since the last week (but has full range of motion of the neck), same intensity of pain since 1 week.
Nausea and vomit + (since 1 week - non bloody)
Mentions 'something' behind right ear. No otorrhea or changes in hearing.

PMH: Left ankle fracture 1 month prior - underwent ORIF

Meds: None

Fam Hx: -

Soc Hx: Lived in US for 10 years
Construction worker
Sexually active with 1 female partner

Health-Related Behaviors: Unremarkable

Allergies: None

Vitals: **T: 98.5F** **BP:** 100/64 mm Hg **RR:** 110/min ; SAO2- 100% on room air.
Exam:
Gen: Comfortable, no acute distress
HEENT: Right outer ear- tenderness and erythema and swelling near the mastoid area, internal canal not swollen; right posterior cervical lymphadenopathy noted. EOMI. Able to fully move neck, but some discomfort on neck movement noted.
CV: Tachycardia, no murmurs.
Pulm: Clear to auscultation.
Abd: Tenderness in epigastric region ; no rebound/ guarding.
Neuro: No focal neurological deficits.
Extremities/skin: Diffuse maculopapular rash in torso and extremities. (not on palms and soles)

Notable Labs & Imaging:
Hematology:
WBC: 5.7 (No left shift, 68% neutrophils, mild lymphopenia (10%)) Hgb: 13.5 Plt: 297
Chemistry:
Na: 136 K:4.3 Cl:101 HCO3:25 BUN: Cr:0.85 glucose: 94 Ca: 8.4
AST: 44 ALT: 79 Alk-P: 110 Albumin: wnl
Alb - 3.7 PT - 15.4 ; Lactate - Normal; ESR - 17; CRP - 5.71
UA - normal ; Monospot - negative ; Hepatitis Panel - negative HepA; positive core IgM Hepatitis B ; other Hep B antibodies - negative
Respiratory pathogen panel - negative
Imaging:
CXR: No significant findings
CT head w/o contrast : No masses / shifts/ edema / hemorrhage ; sinuses and mastoid air cells was normal ; CT w contrast - normal sinuses
RUQ US: Gallbladder sludge and hepatic steatosis
CSF studies: Straw colored fluid ; WBC - 658, RBC - 131, glucose - 41, 8% neutrophils, 80% lymphocytes, 5% monocytes ; gram stain - rare WBC and no organisms; CSF culture - negative ; CMV, HSV, Enterovirus, RMSF, RPR - negative, West Nile IgM - negative, IgG - positive ; HIV antibody - positive; HIV PCR RNA - 6,640,000 copies; Cryptococcal antigen - not detected; Toxoplasma - negative; CD4 - 892; TB labs - still pending

Dx: Acute HIV associated meningitis

Problem Representation: 19M with 1 week of fever, headache and neck pain, was noted to have maculopapular rash on the torso and extremities with labs notable for lymphopenia and lymphocyte predominant CSF.

Teaching Points (Navpreet Singh):

- Patient presenting with symptoms at young age could be due to Bad gene ,bad behaviour or bad luck.
- Young age of presentation screen for immunocompromised status and evaluate atypical causes of headache and fever due to social h/o.
- Headache -always look for associated systemic symptoms,neurological symptoms ,onset of headache and previous headache episodes,neck rigidity,
- Fever- causes includes infection, inflammation, metabolic, structural,fever +n/v can lean towards meningoencephalitis.
- Ear infection and mastitis can spread to brain and cause neurological symptoms.
- Fever+post LAD ,rash- d/d could be due to some Tick Borne infection /francisella/malignancy/toxo/ebv/syphilis/TB
- Young age with fever + rash always rule out syphilis and HIV.
- Hodgkin Lymphoma always present in young population and have very similar symptom presentation.
- If infection workup is non inclusive try to look and evaluate for lupus/kawasaki /GPA/vasculitis.
- Q:Why is pt with benign labs have fever,LAD?-inflammatory response is suppressed or granuloma/abscess preventing body to react to infection?
- Predominance of lymphocytes and high rbc on csf -infectious (viral/atypical)and autoimmune process.
- Serum sickness- immune mediated syndrome can cause rash,fever and LAD
- Sometimes Acute retroviral syndrome can present like mononucleosis like symptoms.
- Evaluate for opportunistic infection in a HIV patient.