7/9/25 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Hans-Joachim(@) Case Discussants: Sharmin (@sharminz) and David (@davserantes)

Scribing (Julia Z and Elena)

CC: 24 M with severe headache, jaundice and fever for 2 days

HPI: Severe headache (8/10), associated w nausea and nonbloody emesis for 1 day. Nausea had improved but reports weakness. Reports scleral icterus.

ROS (-): No weight loss, urinary symptoms, SOB, bloody stools, no stiff neck or photosensitivity

PMH: none

Meds: none

Fam Hx: no Hx of liver Dz

Social Hx:
Trip to India (returned 1 month ago)
Denies contact with animals or different foods
Single, not sexually active

Health-Related Behaviors:
Rarely drinks alcohol
Denies smoking
No recreational drugs

Allergies:

Vitals: T: 102F (38.8C) **BP:** 100/68 **HR:** 80 **RR:** 18 **Sat:** 98% RA **BMI:**
Exam: Gen: AO x 3, scleral and mild sublingual icterus
HEENT: nl **CV:** nl **Pulm:** nl
Abd: soft, non-tender, soft sounds, no hepatomegaly, no splenomegaly
MSK: Mildly jaundiced skin

Notable Labs & Imaging:

Hematology:
WBC: 9k Hgb: 11 Plt: 100 MCV: 85

Chemistry
Na: 135 K: 4.0 Cr: 0.8 BUN: Ca: nl Ph: nl Mg: nl Glu: Cl: 111 HCO3: AG:
CRP: ESR: LDH: AST: 20 ALT: 13 ALP: 43 Bili: total 4.3 (Direct 0.9) Alb: 4.0
UA: nl
Blood cultures x3: negative after 48 hours

Imaging:
CXR: unremarkable
Head CT: unremarkable
Abdomen US: unremarkable. Normal liver textures, normal biliary ducts.
Lumbar puncture: clear, 437 nucleated cells. Lymphocytic pleocytosis.
Glucose 49. Protein 46. No bacteria.
VDRL: negative. HIV negative.
Hospital course: received vancomycin + ceftriaxone + acyclovir.

Blood Smear: unremarkable, no malaria found.
Hepatitis A IgM non-reactive / Hepatitis B IgM and IgG NR / Hepatitis C IgG and IgM NR
Hepatitis E IgM positive
PCR hepatitis E: positive

Dx : Hepatitis E infection (with hemolytic anemia and aseptic encephalitis)

Problem Representation:
A 24 year old male presented with headache, jaundice and fever associated with scleral icterus and non-bloody emesis.

Teaching Points (Seeme):

Approach to jaundice and headache:
We can focus on the symptom with more narrow differentials, we can think about different causes of hyperbilirubinemia-direct (hepatobiliary system) or indirect(hemolysis).Jaundice can be caused by hepatitis, malignancy or obstruction. We can have anatomical approach to headache.Meningitis and meningoencephalitis can cause headache and fever. We can think about brain parenchyma, meninges or vascular structures.Headache can be a signature of systemic infections like malaria.

Approach to fever in a returning traveller:
It is important to rule out CNS infections with LP, photosensitivity and neck stiffness may appear late. We can think about parasites or viruses. Travel history makes the differentials very broad. Longer incubation period makes us think about malaria as well, dengue has a shorter incubation period. TB, typhoid and HIV should also be considered. Blood cultures, peripheral smear and RUQ ultrasound can help us further.

Approach to fever and heart rate dissociation (faget's sign):
When patient has fever and relative bradycardia, we can think about intracellular organisms like salmonella causing typhoid fever, rickettsia, babesia, malaria, anaplasmosis and leptospirosis.

Approach to lab findings (anemia, thrombocytopenia, indirect hyperbilirubinemia):
When patient has anemia and thrombocytopenia we can think about infections or TTP or DIC. When patient has indirectly elevated bilirubin we can think about hemolysis and get peripheral smear.Increased synthesis or decreased uptake can cause indirect hyperbilirubinemia.G6PD deficiency can also cause hemolysis.

Approach to lymphocytic pleocytosis:
We can think about listeria , TB or nocardia. Viral infections can also cause such presentations on LP.Autoimmune inflammatory diseases can also be considered. Malaria can also cause lymphocytic pleocytosis. Mycoplasma is also worth considering as it can cause hemolytic anemia with encephalitis like picture.
-Hepatitis E affects 20 million people annually and more common in Asia and Mexico and transferred by feco-oral route. It can cause viral encephalitis and hemolytic anemia.