10/24/26 IMG Initiative VMR with @CPSolvers

"One life, so many dreams" **Case Presenter**: Allegheny General Hospital Internal Medicine (@AHNIMres) **Case Discussants**: Jeffrey & Kuchal

https://clinicalproblemsolving.com/present-a-case/

Scribing (Lera):
CC: 65M with 5 days of **N/V, abdominal pain**
HPI: Initially non productive cough, wheezing, SOB -> self improved. Then developed GI Sx.

ROS: fevers, fatigue, chills
Otherwise negative, no bowel Sx

PMH:
COPD
RA
HTN and HLD

Meds:
Tofacitinib
Albuterol
Ezetimibe
Atorvastatin

Fam Hx: —

Social Hx: no travel, sick contacts. Recent **camping Hx** with exposure to heavy smoke from wildfire.

Health-Related Behaviors: 16 p/y smoking Hx

Allergies: —

Vitals:
T: 101.2 **HR**: 84 **BP**: 84/50 **RR**: 18 **Sat**: 98%

Exam: Gen: acutely ill, in fetal position
HEENT: no jaundice, dry MM, no LAD
CV: nl | **Pulm**: CTAB | **Neuro**: AO x 3, no FND
Skin: no rashes **Abdomen**: non distended, generalized tenderness **+ RUQ pain**

Notable Labs & Imaging:
Hematology:
WBC: 6.2 [nl diff] | **Hgb**: 10.5 -> ***8.9*** | **Plt**: 140 -> ***60*** | MCV: 84

Chem: Na: 135 | K: 4 | Cl: 104 | Ca: 8.3 | BUN: 30 | **Cr**: 1.6 -> ***2.1***
Glu: 107 | HCO3: 21 -> ***18*** | T. protein: 7.1 | Alb: 3
AST: 194 -> ***446*** **ALT**: 160 -> ***290*** **ALP**: 298 **T. Bili:** 3.3 **D. bili:** 1.2
Lactate: 1.3 | Lipase: 37 | Procalc: 1.58 | Trops < 20
Coags: INR 1.3 PTT 50 **Ferritin**: 6800 **TSAT**: 12%

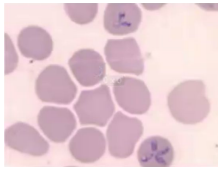
EKG: sinus tachy | **CXR**: nl
RUQ US: gallbladder sludge, + US Murphy sign

-> started on pip/tazo, fluids -> BP improved -> febrile and recurrent low BP, ongoing RUQ pain

CT A/P: no acute abdominal pathology. **Moderate HSM.** Gallbladder mildly distended, no evidence of acute cholecystitis. Enterocolitis.
MRCP: no calculi, no wall thickening or ductal dilatation **HIDA**: nl

Fibrinogen: 454 D-dimer: 3.93 **Ferritin**: 12K **LDH**: 1400 **Hapto** < 10
Smear: intracellular RBC inclusions, no schistocytes **DAT**: neg
BCx: neg **TG:** 383 **UA**: 1+ pr, 3+ blood. 25-50 RBCs
Tick panel: Babesia PCR (+) , Lyme IgM and IgF (+)

Final Dx: severe babesiosis c/b 2-ry HLH and Lyme coinfection



Problem Representation: A 65 y/o gentleman presented with acute inflammatory syndrome featuring non-specific pulmonary & GI Sx after camping. Laboratory workup and imaging consistent with HLH. A Dx test came back positive.

Teaching Points (Varsha)

Approach to problem:
Are they stable enough to get more history or is it an emergency diagnosis that needs to be immediately addressed
- **VIPO** = Vascular, infection/inflammation, perforation, Obstruction
- Obstruction → Perforation → rebound guarding +/- (contained) → start empirical antibiotic Rx
- Immunocompromised → Any infectious emergencies that requires specific empirical Rx

Correlate with time course of symptoms (5 days → not hyper acute), Age, PMHx, Travel history
GI symptoms could involve other organ systems → CVS (MI), Endocrine (DKA), Renal (Uremia), etc
We have so much information → which is important?
- Hypotension: is this actually hypotensive or is it their baseline?
- Fever + hypotension → ? sepsis, rule out other type of Shock as well
- Shock approach → Hg (hemorrhagic shock), cardiogenic shock (relevant signs/history), Adrenal suppression → cortisol intake (RA Rx)

Approach to CBC -
- Mild thrombocytopenia + Anemia → broad differential (including sepsis) Vs severe thrombocytopenia + Anemia → maybe MAHA/TTP
- Anemia + thrombocytopenia + elevated liver enzyme → **tick borne infection (acute management** → doxy?), arbovirus
  - **Doxy deficiency state**→ tick borne infection (ehrlichia, anaplasma, RMSF, leptospirosis, Lyme)

Imaging→ any surgical emergency? → CT; rule out cholangitis (Sepsis can cause cholangiopathy)
Goal→ localise the source of infection, broad antibiotic coverage
R Ratio for liver enzyme: **pts ALT/ Upper limit of normal ALT ÷ pts ALP/ upper limit of ALP**
- > 5 → Hepatocellular injury
- < 2 → cholestatic pattern
- 5-2 → mixed liver injury

Smear: intracellular organism, + Anemia + thrombocytopenia + Transaminitis → possible babesia (Maltese Cross sign +)