07/03/24 Morning Report with @CPSolvers

*"One life, so many dreams" **Case Presenter**: Ethan (@e_chiu17) **Case Discussants**: Sharmin (@sharminzi) and Jack (@) - THANK YOU JACK! <3*

CC: 72 lady with progressive jaundice for 3 weeks
Dx w/ GIST 3 mo ago -> Post Lap gastrectomy
Uneventful recovery
1 month later: **Jaundice.**
Labs - **AST 116, ALT 128 TB 3**
ROS: Poor appetite
No fever, nausea, vomiting, diarrhea, abd pain, bloody stools

New Fevers post hospitalisation

PMH:
Asthma, HTN, GIST s/p surgery
L4-L5 spondylolisthesis

Meds:
Amlodipine
Silymarin(Liver supplement)

Fam Hx: WNL

Soc Hx: WNL

Health-Related Behaviors:

Allergies:

Vitals: T: HR: BP: RR:
Exam: Gen: Ill looking.
HEENT: Icteric sclera, NO LAD
CV,Pulm: Normal
Abd: Mild HSM. SOft nontender. NO cirrhosis signs
Neuro: AOx3. No cranial, motor,sensory deficits
Extremities/skin: No rash, wound petechiae. Yellowish skin

Notable Labs & Imaging:
Hematology:
WBC: 3.3(4.3%myelo,1.1% meta) Hgb:10.9(11% Nucleated RBC, MCV 82.3 RDW 20 Plt: 214→ 97(3 days later)
PS: 2+ nucleated RBC. WBC: Normal. PLT: ↓ w/ normal morphology
Chemistry:
Na:141 K:3.6 Cl: HCO3: BUN:21.5 Cr:1 glucose: Ca: Mag:
AST: ALT: 110 **ALP:567 GGT 356 TB 14.5 DB 8.2** Albumin:3.53 CRP 36
AFP 2.7(N) Hbs, anti HCV,anti HAV HEV, CMV negative
IgG 788(Mild increase) ANA,AMA, ASMA,DCT,ICT,SPEP negative
Blood c/s: Negative →Ceftriaxone to Zosyn

Imaging:
USG: 1cm liver cyst @ seg 3. BOrderline splenomegaly. Intrahepatic duct dilation
CT Abd: No biliary tract dilation. Splenic infarct, air in the gall bladder wall.
ERCP+ stent for progressive jaundice. Removed d/t no obstruction
Liver Bx: Infiltrates diffuse positive for CD20,CD10 . B-ALL
BMA: Diffuse medium size blasts in marrow. **PAX 5, CD33,CD10** - BALL
RTPCR: p190, BCR-ABL fusion transcript (Ph+)
PET: Diffuse uptake in Bone marrow and liver.

FINAL DIAGNOSIS: Ph+ B-ALL

Problem Representation: 72/lady with recent Sx for GIST w/ worsening jaundice, hepatosplenomegaly, leukoerythroblastic smear, hemolysis diagnosed with Ph+ B-ALL on liver, BM Biopsy.

Teaching Points (Maryana):
- **Jaundice**: two primary pathways - **hepatobiliary disease** x **indirect hyperbilirubinemia (hemolysis)** - where the action is?
Loss of appetite makes us lean toward hepatobiliary dz.
- **New process vs complication of a prior process**. Patient has PMH of tumor - it is important to think about metastatic disease compressing the hepatobiliary ducts vs complication of the procedure.
- **Liver supplement** - what does it contain? Rule out liver toxicity
- Misdiagnosis - **acute liver failure** (encephalopathy, thrombocytopenia) -> very important not to miss this dx
- **CBC findings** -> abnormalities in the blood marrow (early precursors coming out from the bone marrow)
- **Portal hypertension**: inflammation (infectious / noninfectious - drugs and supplements) vs congestion vs infiltration (lymphoma, amyloid, sarcoid, hemochromatosis) -> intrahepatic or extrahepatic cholestasis can give us a clue of the etiology.
- **Bone marrow abnormality + portal hypertension ->** infiltrative diseases become very important in this scenario.
- No biliary duct dilation, underlying hemolysis (high LDH), splenic infarction -> shifting away from the liver and underscoring bone marrow process.
- **Splenic infarction** - Supply problem- **pumps** (embolic -endocarditis, infarction, occlusion), **pipes** (dissection vs vasculitis), **plasma** (hypercoagulability) vs drainage problem (leukemia, myeloproliferative diseases -increased production of different cells causing obstruction)
- **ANA and other work up negative:** less likely to be an autoimmune problem, IGG4 positive -> infiltration?, air in the gallbladder wall - rule out infection.
- Underlying malignancies are very difficult to identify.
Ddx for: viral infections, pyogenic infections, lymphoma w/ underlying viral infection. Confirm first tumor as GIST - important to review.