7/24/24 Morning Report with @CPSolvers

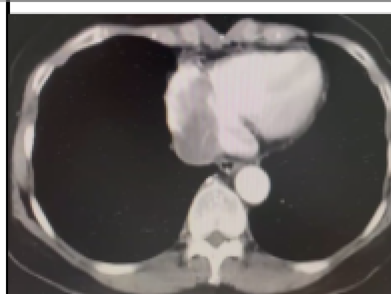
***"One life, so many dreams" Case Presenter**: Ethan Chiu (@e_chiu17) **Case Discussants**: Rabih(@rabihmgeha) and Reza(@DxRxEdu)*

CC: 59 year old female with SOB for 3 days

HPI:
Abdominal discomfort for past week and went to local clinic , endoscopy done and told to have gastritis, given esomeprazole. 3 days ago had SOB and mild lower extremity edema, went to local clinic again, told to have cystitis, medication was given but in vain
ROS (+) N, V, dizziness, poor appetite
ROS (-) headache, chest pain, orthopnea, fever, diarrhea, bloody stool, melena

PMH:
transcervical uterine myomectomy 15 yr ago,
Spontaneous abortion (G3P2A1 has daughter and son)

Fam Hx:
Mom DM
Dad colon cancer



RA thrombus

Vitals: T: 36.8 **HR: 105 BP:** 104/76 **RR:** 13 SPO2 99% under RA
Exam: HEENT: not anemic, not icteric, no JVD
CV: regular heartbeat, no murmur
Pulm: bilateral clear breathing sounds
Abd: soft and flat, Diffuse abdominal tenderness.
Neuro: alert and oriented
Extremities/skin: Mild LE edema

Notable Labs & Imaging:
WBC: 13.3 (Seg 93.9%) Hgb:13.2 Plt: **27k** D-dimer >10000
INR 1.3, APTT 26.8 Fibrinogen 201 Na: 142 K: 4 Cl: HCO3: BUN: Cr:0.69
T bilirubin 1.4 CRP 46.5 LDH 1020 Haptoglobin <7 **Lactate 10.1 mg/dl**
Imaging:
CXR: Normal.PB smear- rare fragmented RBC, TTP unlikely
Abd CT - diverticulitis + **massive thrombus in IVC and RA**
CT angiography - persistent filling defect in RA, RV,IVC,iliac veins, thrombus with interval progression in size and distribution,↑mesenteric stranding at upper abdomen, mild amount of ascites, swollen bowel loops, suspect due to congestion, Heterogeneous liver parenchyma and periportal edema, suspect due to congestion, Wall thickening and edema of gallbladder, suspected congestion
TTE: EF 75% Mild TR, MR, AR, FLoating thrombus in IVC, RA,RV
CTVS: Complete thrombus not feasible. Heparin line to keep aPTT 1.5-2
PNH (-) PF4 IgG, Direct and indirect Coombs , ANA, Anti-dsDNA, anti-cardiolipin, anti-cardiolipin IgG, anti-B2GP1 IgM, anti RNP, anti-ribosome, anti-Smith, Lupus (-)
C3 - 103, C4 - 20.2, CA 19.9 <2 CA 15-3 5.3, AFP 2.5 CA 125 11.1, Prot S and C nl
Antithrombin III 28.4 low, Shiga toxin E coli (-) HBV, HCV, EBV, CMV, Parvo B19 (-)
PBS - 2+ schistocytes but ADAMTS13 level was normal, JAK2 mutation (-)
CTA - thrombus in Right hepatic vein, IVC and RA, **infiltrative lesion S7, S8 of liver**, HCC with tumor thrombophlebitis, bilateral pleural effusions, small lung nodule at RUL, lung metastasis?
MRI liver - 1.4 cm nodule in S8 abutting right hepatic vein and IVC, favoring HCC in S8 with invasion to Rt hepatic vein with diffuse tumor thrombosis in IVC and RA
PIVKA II/ DCP: 336 High
Dx: Stage 4 Hepatocellular Carcinoma

Problem Representation: 59/F with PMH of Abortion presenting with worsening SOB, abdominal pain, hemolysis, Type B lactic acidosis, multiple venous thrombosis and negative lab workup for thrombophilia finally diagnosed with Metastatic HCC on repeat imaging

Teaching Points (Vijay):
Focus on **Chief Concerns** when diverse symptoms and assess severity of each
- SOB + Abdominal pain: thoracic→ Referred to abdomen vs Abdomen → Thorax (**Congestion due to clot)**
- Tachycardia: Red flag, LE edema: Venous stasis
- Disconnect between Exam and History→ Walk the patient

LABS
- Low hapto + No lysis = Cirrhosis(*Hapto synthesis liver)*
Normal Hb + Low hapto = Hemolysis/Excess reticulocytosis/Dehydration
- **Hemolysis** = RBC defect(**Surface, Hbpathy)** vs Environment (**MAHA, AIHA, Infections)** = PS (sphero, schisto, infections)
-Surface of RBC(AIHA/Evans), Inside RBC, Environment
+ Platelet = All mechanisms possible
- Environment >> AIHA/Evans(less to have 2 abs)
- **Macrovascular complications**: Thrombosis(Pulm/Mesenteric/PV)
Extensive VTE + MAHA + Preserved patient: TTP/HUS/DIC
-TTP: No CNS/No Renal. DIC: Fibrinogen doesnt rule out
+Pregnancy: **Catastrophic APS**= Check baseline apTT(*False normal in acute thrombosis).*
1 schistocyte in Right Context = 1 schistocyte too Many
(Triad of ↑LDH, ↓Platelet, 1 schistocyte = MAHA)
Cryptic UltraHyperCoagulable state= Cancer, HIT(*In absence of Hep exposure* PF4 specific*)*, MPN. **+ MAHA**: Seronegative APS(5%,PI Annexin A5, PE,PS)
Cancer: Can be preserved at presentation
Thrombus: Blood vs Tumor thrombus