06/25/24 Morning Report with @CPSolvers

"One life, so many dreams" ***Case Presenter****: David (@davserantes)* ***Case Discussants****: Steph (@StephVSherman) and Zaven (@sargsyanz)*

CC: 57 year old woman presented with 3 days of upper abdominal pain

HPI: Also complained of asthenia in the last 3 months, without any fever or weight loss.No nausea, vomiting or diarrhea. No similar episodes in the past. Abdominal pain is unrelated to food.

PMH: Graves disease 15 years ago, without treatment since then.

Soc Hx: Works at home. No recent travels. No pets.

Vitals: T: HR: 105 **BP:** 110/55 **RR:** 22 **SpO2:** 95% under RA
Exam:
Gen: Mild distress
Abd: upper abdominal pain, no muscle guarding.
No other findings relevant.

Notable Labs & Imaging:
Hematology:
WBC: 9000 (normal DC) Hgb: 11.5 -> 9 -> 8 MCV: 87 Plt: 130k -> 70k
Chemistry:
Na: 137 K: 3.7 BUN: 23 Cr: 1.2 -> 1.8 -> 2.4 glucose: Ca: 9 AST: 30 ALT: 35 Alk-P: 170 (normal: <120)
Albumin: 3.5 CRP: 15 LDH: 150 Lipase: n (repeated also normal)
U/A: non-nephrotic range proteinuria. No casts. No RBC. UPCR: 1-2 g/24h
B/C*3: negative U/C*3: negative
HIV, HBV, HCV (-); ANA, ANCA, APLS Ab (-); SPEP, UPEP, Bence-Jones (-)
PB smear: normal; Vit B12, folate: normal TSH: normal; Rickettsia, coxiella serologies (-)
Imaging:
CT abd: mild tail pancreatitis. Periportal edema. No other remarkable findings.
Repeated abd CT: periportal edema and mild ascites, without clear signs of pancreatitis.
EGD: normal
PET/CT: bilateral axillary, cervical, peripancreatic, paraaortic, iliac and inguinal lymphadenopathy, 10cm of enhancing spleen, reactive bone arrow, mild ascites and bilateral pleural effusions.
Bone marrow biopsy: mild fibrosis, moderate myeloid and megakaryocytic hyperplasia, and reactive plasmacytosis, without signs of hemophagocytosis or malignancy. MTB (-)
LN biopsy: no malignancy. Hyperplasia. Consistent with TAFRO.

During the first week of admission, the upper abdominal pain persisted , and she developed intermittent fever up to 39C despite empiric abx, bilateral LE edema and mild respiratory insufficiency with mild bilateral pleural effusions.
During the second and third weeks of admission, she developed mild ascites, anasarca, and kidney function and bitycopenia worsened, needing H/D, and subsequently developed hemodynamic instability requiring admission to ICU with vasoactive support and continuous hemodiafiltration.
Dx: TAFRO syndrome

Problem Representation: 57y/o F w/ remote history of Graves disease p/w acute, persistent abdominal pain and subchronic asthenia w/ labs notable for mild normocytic anemia and thrombocytopenia. Hospital course c/b refractory fevers anasarca, and exam/imaging notable for hypervolemia ISO progressive bicytopenia

Teaching Points (Parisa):
Upper abdominal pain: localized to GI (dyspepsia; reflux); systemic illness (cardiac, pancreas) → Red flags: long duration; severity; abnormal vital sign; accompanying sign malena
Graves hx → recurrent hyperthyroidism; GI hypermotility; treatment side effect: Iodine ablation(iatrogenic hypothyroidism); methimazole (agranulocytosis); beta blocker; other autoimmune dx
Anemia + thrombocytopenia → Microangiopathic process → hemolysis (LDH, Bilirubin, PBS)
Elevated ALKp → hepatobiliary (GGT); bone; small bowel; placenta
Liver injury → drug induced; diffuse infiltrative process (sarcoidosis; TB)
Pancreatitis → Postprandial abdominal pain; elevated lipase; complicated with ARDS(local inflammation and systemic → capillary leakage) → hepatobiliary system plus pancreatic involvement → infiltrative dx; IgG4 related AI pancreatitis; thyroid dx
Glomerular leakiness → GN vasculitis(RBC); cellular UA
Edema plus pleural effusion → **third spacing fluid accumulation** → exam (neck vein; IVC; filling pressure)
Worsening bicytopenia → repeat lab→ LDH; Cr (hemorrhage; hemolysis; Bone marrow)
Fever w/ AB therapy (AB failure schema) → inflammatory process; rickettsia dx
HLH: high fever; progressive bicytopenia; organ dysfunction (d/t cancer; infection, CMV/EBV) → AML just by underlying inflammation
Capillary leakage syndrome(CLS) → cytokine release → intravascular hypovolemia; vasodilation → sepsis; differentiation syndrome (DS) in treating AML
TAFRO (variant of idiopathic multicentric castleman dx) → thrombocytopenia; anasarca; fever; renal dysfunction; organomegaly
→ cytokine dysregulation(IL6); AI; infection causes