12/25/24 Morning Report with @CPSolvers

***"One life, so many dreams" Case Presenter**: Kirtan Patolia (@KirtanPatolia)* ***Case Discussants**: Sharmin Shekarchian (@sharminzi) and Reza Manesh (@DxRxEdu)*

✨***"The shining sparkle"*** ✨

CC: 30M goes to dinner w/ friends on Monday, eats chicken, beef, pizza, cake and juices and 2 of his friends develop N/V/D on the same day.

HPI:
2d after suspicious meal (Wednesday) he develops fever, sore throat, N/V, drenching night sweats, non-bloody diarrhea, anorexia.
Gets prescribed Oseltamivir & Ibuprofen 3 days after symptoms start (Friday).
5d later → presents in ED due to profound N/V and anorexia: intermittent LUQ pain, worse on inspiration + movement, diffuse throbbing headache 7/10, no exacerbating or alleviating factors.

ROS: no prior similar sx, rhinorrhea, dysphagia, rashes, dysuria, tenesmus, hematochezia, blurry vision.

PMH:
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Meds:
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Soc Hx: occasional vape. Engineering student, came back from india 1 month ago. No pets.
Health-Related Behaviors:
Flu vaccine 2 weeks ago (felt sick afterwards for few days)

Vitals: T: 39.2°C (102.5F) **BP:** wnl **RR:** 22 **HR**: 135 **Sat:** 98% RA, BMI 35
Exam: Gen: tired looking, very unwell, sweating profusely
HEENT: no LAD, ulcers, no pallor ; **CV:** RRR, no murmurs, tachycardia; **Pulm:** normal; **Abd:** LUQ tenderness, otherwise unremarkable; **MSK:** no rashes, no edema, no clubbing

Notable Labs & Imaging:
Hematology: WBC: 15.1 (77% PMN, 11% bands) Hgb: 15.3 (MCV: 85) Plt: 172 **smear** unremarkable
Chemistry: BMP: wnl
LFTs: AST 43, ALT 28, LDH 220, Alk-P nl, GGT nl, Bili nl, Total Prot 7.3, Albumin: 3.4 (low)
UA: 2+ blood, 30 RBCs, 3 WBC, 100 protein on dipstick

Week 1:
Pt condition same, intermittent fever + tachycardia (125-160), **HR always high! No matter what temp**, LUQ fullness persists, N/V/diarrhea resolved, new onset pain on swallowing water, Lt lateral tongue 1 tiny aphthous ulcer but gums okay w/o blood. Started on Vanc+Zosyn. no rash or neck swelling.
2nd CBC: WBC 15-20k (PMN, bands); PBS: wnl, no schistos, no inclusions,
2nd LFTs: deranged, AST 184, ALT 92, LDH 382, CK wnl
2nd UA: proteinuria (1-2 g), 10-20 RBCs, 2+ blood, dysmorphic RBCs
RESP panel: COVID, influenza, parainfluenza, RSV, -ve
Infectious panel: Syphilis, HIV, Hep -ve. Blood 3x + urine 2x cultures unremarkable
CTAP: hepatic steatosis, hepatomegaly, mild splenomegaly, retroperitoneal lymph nodes without overt LAD, lungs clear, no infiltrate or effusion

Week 2:
8d after initial presentation: severe stabbing chest pain, worse on lying down, pericardial rub on exam.
Troponin 0.712, **BNP** 348, 360; **CK:** 120 **EKG:** diffuse ST segment elevation
CT Chest: no PE, no infiltrates, fat stranding in pericardial recess concerning for pericarditis.
Cardiac MRI: pericarditis & myocarditis ("diffuse enhancement/shining of pericardium w/ myocardial involvement)
Echo: EF nl, no diastolic dysfunction/wall motion abnormalities/vegetations, mild pericardial effusion
Pt condition: Diaphoretic, N/V and Upper abdominal pain resolved. Profound chest pain.
Started on NSAIDs + Colchicine, no improvement after 3-4d,
Hapto nl. After rehydration: Hb 13-14, PLT 170-180, WBC leukocytosis, ESR CRP very high
Antistreptolysin O titers and Urine strep + legionella, CMV, Toxoplasmosis, HHV 6, Parvovirus, Leptospirosis, Malaria ALL negative, EBV DNA neg, **EBV VCA IgG+IgM high titers**
Rheum panel nl (ANA, ANCA, complements, APLS serologies, Scl-70) + anti-gbm nl.
Pt transferred to CCU: Ferritin 7,500 > 10,000 > 20,000. Started on steroids and tocilizumab. Condition improved remarkably. Mycoplasma IgM POSITIVE. Started on azithromycin for 5d.

Dx: Acute mycoplasma infection leading to Adult Onset Still's disease

Problem Representation (Noah): A healthy 30 yM p/w acute multisystemic inflammatory syndrome w/ pharyngitis, pericarditis, hepatosplenomegaly, refractory to ABx, w/ persistent neutrophilia, absence of cytopenias and GN.
(Andrew): Inflammation of: Serosa (pericardium), Myocardium, LNs (RP), Kidney (GN), Mucosal surface (tongue), Blood (periodic fever)

Teaching Points (Anmolpreet): MERRY CHRISTMAS!!!!!
I] Nausea/vomiting/ headache seem to be bystanders to a systemic process**;**
Recall bias: relating past events to presenting symptoms
Night sweats → inflammation→ *demargination of neutrophils*, *decreased albumin*(acute phase reactant)--> **IMADE**(Infection/Malignancy/Autoimmune/Drugs/Endocrine)**;**
all the symptoms could indicate an **intracranial process** as well– broad differentials;
autoimmune possible (given the age of the patient)
II] Fever in a returning traveler: is also a possibility, we can consider infections with long incubation period.
III] Raised LDH with normal CBC: makes us think if the patient is dehydrated, and the values are artificially high. Patient might be having decreased platelets (indicated→haptoglobin, smear). Hemolysis possible-> Coombs test (warm vs cold)
IV] Hematuria+proteinuria: possibility of glomerulonephritis/ glomerulopathy→ trend UA, microscopy(casts, etc), spot protein-creatinine ratio, pan-CT scan.
Immune-complex mediated or ANCA/anti-GBM
Glomerulonephritis with normal creatinine: one does not need to have AKI to be diagnosed as GN esp as this patient has proteinuria, hematuria, dysmorphic RBCs
V] Splenomegaly+lymphadenopathy: ?infiltrative, granulomatous ds
Thick and thin smears for malaria, retroperitoneal LAD makes us think of lymphoma→ can lead to hemolytic anemia
VI] Chest pain, worse on lying down: pericarditis, POCUS/detail ECHO to look for pericardial effusion, Trop-T to check if myocardium is involved; esophagitis is also a possibility (next tests: ANCA, anti-GBM, ANA, ?kidney biopsy)
Normocomplementemic GN with normal creat: ? IgA nephropathy
VI] Yamaguchi's criteria for **AOSD**: points are non-specific but can go 1/1 after we rule out various mono-like illnesses, autoimmune ds→ no diagnostic test→ ferritin can be checked→ other causes of high ferritin can be ruled out.
AOSD often has a trigger!*-Mycoplasma as a trigger in this patent*
MAJOR CRITERIA (at least 2): 1. High grade fever (>39 C) for at least one week; 2. Arthralgia/arthritis for at least 2 weeks; 3. Non-pruritic salmon-colored rash on trunk/extremities; 4. Granulocytic leukocytosis
MINOR CRITERIA (any of following): sore throat/LAD/ splenomegaly-hepatomegaly/ abnormal LFTs/ negative ANA-RA