02/3/25 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Mukund Case Discussants: Vinícius (@vinibarzon), Jeffrey Shen

CC: hospital transfer

HPI:

40 year old with history of scleroderma presented with nausea, vomiting and food intolerance to primary care clinic, sent to ED after anemia to 6.4 on POC Hgb test. At hospital, Cr 6.3 and admitted for workup of new renal failure with biopsy done and results to be shared later. RRT initiated at this admission. Readmitted 2 months later with Enterobacter pneumonia requiring intubation course complicated by flash pulm edema. Now extubated and much improved. Echo with EF newly low to 20%

ROS: no cough, reflux, digestive, joint pain, sweating, photosensitivity, rashes or oral ulcers

PMH:
Scleroderma (2003)
Raynaud's (2004)

Meds:
Losartan

Fam Hx: non-contributory

Soc Hx:
Strawberry picker in California
3 children

Health-Related Behaviors:
no smoking, drinking or other drugs

Allergies: none

Vitals: T: 98°F **BP:** 87/58 **RR:** 16 **HR:** 80 **Sat:** 100% on RA

Exam: Gen: severely cachectic and exhausted

HEENT: thin skin around mouth, no salivary gland hypertrophy, no LAD, no ulcers

CV: RRR, no murmurs

Pulm: clear to auscultation

MSK: some thickening of skin distal to PIP joint with prominent fingernail clubbing, No joint warmth or effusion in any joint. Proximal muscle strength 5/5 bilaterally

Notable Labs & Imaging:

Hematology:
WBC: 7.5 Hgb: 9.8 Plt:390 Hct:30 MCV:90 RDW 16.3 (high)
Ferritin 1200

Chemistry
Na: 137 K:4.7 Cr:5.6 BUN:44 Ca: 9.7 Ph 6.5 (high): Mg: 2.5 Glu: 75 Cl:96 HCO3:23
CK:14 Troponin: nl, Haptoglobin: 255 (high), LDH:nl
ANA: 1:80 (diffuse pattern) p-ANCA: >1:600 c-ANCA: neg
Anti-centromere: negative, anti-RNA pol III: 55 (upper limit 20), anti-scl 70: neg, Anti-dsDNA: neg Anti-Sm: neg Anti-RNP:neg
C3:nl, C4:47.7 (high)

Imaging:

Echo: moderate eccentric LV hypertrophy with EF 55-60%. Bicuspid aortic valve. Normal PASP and RA pressure

Renal biopsy: 90% global sclerosis of glomeruli with significant interstitial inflammation composed predominantly of lymphocytes and occasional eosinophils, no evidence of GN, intra-or extra capillary thrombosis

Dx : unclear

Problem Representation:

40 year old female with history of scleroderma who was transferred to the hospital after she was noted to have anemia and renal failure.

Teaching Points(Hee Mun):

Emergency issue: SRC (HTN, renal failure, oliguria, edema, hematuria, proteinuria) must be treated first before considering DDx;

SSc: skin thickening, GI dysmotility, hemolysis, TMA (schistocytes, low haptoglobin, LDH, indirect bilirubin).GI N/V can be due to VGE(, anemia from bleeding, or SSc (with GI dysmotility TMA and hemolysis).HF can be caused by stress-induced cardiomyopathy or HTN, leading to FPE, treated with ACEi.

Physical exam findings(scleroderma): include telangiectasia, digital ulcers, and skin thickening or fibrosis.
In SRC, hypotension is not typical; skin thickening at DIP may be hard to notice, and pinching the skin is impossible; clubbing may indicate pulm manifestations due to pulm HTN (ILD)./lung cancer /Drug-induced conditions that can mimic scleroderma renal crisis

Lab: TTP vs TMA: High Cr consistent with ARF; AHF BAV (AS)Recovering from SRC or a different source of infection causing pt symptom
ANA: 1:80 (diffuse pattern), p-ANCA: >1:600; ANCA vasculitis or ANCA can be false positive; malignancy**, ANCA vasculitis mimic**: TB, aspergillosis, endocarditis (e.g. bartonella)->UA casts and renal biopsy: ANCA (GM) vs SRC (TMA), //Drug-induced vasculitis (e.g., hydralazine) can cause ANCA positivity and resemble vasculitis/Haptoglobin high and LDH normal suggests no hemolysis.
Renal Biopsy: Interstitial nephritis can be caused by drugs (NSAIDs, antibiotics), malignancy, sarcoidosis, and autoimmune diseases.->Monitor and observe to determine what is active or not, while keeping a broad differential.