12/08/23 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Ethan Chiu (@) Case Discussants: Rabih (@rabihmgeha) and Noah (@Noah_Nakajima)

CC: 40 yo women with progressive bilateral LLE for 2 weeks

HPI: healthy until two weeks prior to edema, edema didn't get better with diuretics. Refers petechial rashes in both of her legs and elbows, not painful, not itchy, Refers orthopnea and dyspnea on exertion, no headache, no decreased urine output

PMH: thalasemia

Meds: no use prior, chinese herbs for 2 years

Fam Hx: mother with CAD, brother with HTA

Soc Hx: no alcohol, no drugs

Health-Related Behaviors:

Allergies: None

Vitals: **T:** afebrile **HR:** wnl **BP:** 234x118 **RR:**
Exam:
CV: wnl
Pulm: bilateral clear, no crackles
Abd: unremarkable
Neuro: unremarkable
Extremities/skin: bilateral LLE and petechiae rash on the legs and elbows

Notable Labs & Imaging:
Hematology:
WBC: 20.1 Hgb: 10.6 MCV 58.9 Plt: 567 aPTT: normal
Chemistry:
Na: 138 K: 3.9 Cl: BUN: 10.9 Cr: 0.39 Albumin: 3.22
Troponin: normal
BNP: normal, TSH: normal
UA 2+ protein, positive LE, no RBC
HBsAg -, anti-HCV -, haptoglobin 305
ANCA -, ANA -, LA -, ENA profile -, cryofibrinogen +, cryoglobulin -
C3 c4 normal, IgA level normal ,RF -
Light chain: kappa elevated and lambda elevated, kappa/lambda ratio: normal,
Urine protein-creatinine ratio (UPCR): 473.6
renin & aldo normal
Imaging:
Kidneys US: large right and left kidneys
CXR: normal
Echocardiogram: normal
DVT scan: negative
Kidney Biopsy:
IF: -
Dx: cutaneous leukocytoclastic vasculitis

Problem Representation: 40 y/o female with PMH of thalassemia, presents with bilateral lower extremity edema unresponsive to diuretics, and vasculitic rash with labs suggesting kidney involvement

Teaching Points (Maryana):
Lower edema:
- **Unilateral:** local problem (very rarely is a systemic disease)
- **Bilateral:** huge chance of a systemic disease

Venous stasis: expected in elderly patients and does not cross the knee - less likely in a relatively young patient
Important factors to consider: time course, woman/man, edema grade
B/L LLE: Heart x liver x kidney.
Liver: absence of jaundice decreases (almost excludes) the chance of liver issue
Heart: orthopnea. Causes of HF: HTN, MI, toxins (alcohol and methamphetamine).
Kidney: petechiae is often inflammatory. It is a highly immunologic organ, often fails due to inflammatory and autoimmune conditions.
Hypertensive emergency: rapid lowering the BP - clinical consequences and risks. In patients w/ chronic HTN - oral medication may be a better option
Young woman + rash + proteinuria:
- Infections: hepatitis, endocarditis - serologies, blood culture
- Autoimmune diseases: complement, ANA, ANCA, RF (mixed cryoglobulinemia)

Deep necrotic purpura: endocarditis, IgA or cryoglobulinemia
Kidney evolvement: proteinuria as a consequence and not a cause, large kidneys, severe HTN -> renal vascular injury? Renal arterial or vascular problem?
Cryofibrinogenemia is similar to cryoglobulinemia, more variety of underlying causes compared to cryoglobulinemia, and more rates of idiopathic diseases
Secondary causes:
- Connective tissue (SLE, APLS, systemic sclerosis, IBD),
- Vasculitis (Burgers's, HSP, GCA, Behcet's), ***cutaneous vasculitis***
- Malignancy (lymphoma, colorectal cancer)
- infections.