01/03/24 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Navpreet Singh Cheema (@navpreetcheema1) Case Discussants: Steph (@StephVSherman) and Zaven (@sargsyanz)

CC: A 69 yo female presents with c/o b/l LE swelling and pain.

HPI: PCP for swelling of b/l calves-> LE US negative for DVT-> Lasix-> No improvement -> Inc dose -> Swelling progressed to involve b/l thigh and lower abdomen-> ER visit.

Right hand numbness and b/l UE swelling were also noted.

ROS: Negative for chest pain, dyspnea, joint pains, headache & fever.

PMH: Vit D deficiency, hypothyroidism, GERD, Hyperlipidemia

Meds:Vit-D tablets, Levothyroxine, Pantoprazole, Simvastatin

Fam Hx: NA

Soc Hx: NA

Health-Related Behaviors: NA

Allergies: NA

Vitals: T:Afebrile HR: 68 **BP:144/67 RR:18, SpO2 97%**
Exam:
Gen: Alert oriented
HEENT: nl **CV:** nl
Pulm: dec b/l breath sound, crackles bl lung field
Abd: nl **Neuro: nl**
Extremities/skin: 3+ pitting edema b/l LE edema extending to mid thigh, b/l UE edema hand to mid humerus

Notable Labs & Imaging:
Hematology:
WBC:15.7 (N79%, L12%) Hgb:7.3->6.8->7.5 (Post-transfusion), HCT 24
Plt:632, ESR 58, CRP: 2.38
Chemistry:
Na: K:5.8 Cl: HCO3: BUN: 60 Cr:3.0 glucose: Ca: Mag:
AST: 42 ALT:nl Alk-P: Albumin: 1.5 Total protein: 5.5
GFR 16
SPEP: Nl**, Complement level**: Nl, **B culture & Urine Culture:** Negative
UA : Leukocyte esterase, + blood, 4+ RBC, minimal amount of proteins, some WBC and granular casts
Anti GBM & **Anti PLA2R antibody:** Normal
U Spot 1094.5 (nl is 100), **c-ANCA**: 1320
Imaging:
CT Chest: Multifocal nodule b/l lungs (likely pneumonia), Benign Sclerotic lesion on ribs b/l
LE US: Negative for DVT, Renal US: No nephrolithiasis, No hydronephrosis
Kidney biopsy: Active pauci immune focal crescentic necrotizing GN
Rituximab & Steroids-> Sx improved including labs-> 6 mth F/U revealed improving anemia.
Dx: c-ANCA mediated pauci-immune crescentic Glomerulonephritis (Granulomatosis with Polyangiitis)

Problem Representation: 69F presenting with diffuse edema, nephritis, pneumonitis and bone lesions.

Teaching Points (Maryana):

- **Unilateral**: local causes - inflammatory (cellulitis), venous obstruction // **Inflammatory causes manifesting bilaterally**: venous stasis, erythema nodosum
- **Bilateral**: systemic process (heart, liver, kidney), medications (gabapentin) - check other signs to have a clue where the problem is

Pain: acute (stretch of tissues) x patient reaction to physical exam // **Arms swollen**: anasarca? // **Lasix didn't work**: dose issue? Volume excess is not the problem? // **Arm tingling** w/ extrema edema - expected. Neurological exam to check if there really is neuro impairment - important to not go in the wrong direction.
Anasarca: medication compliance or excess use (thyroid disturbance - interstitial edema and deposition of glycosaminoglycans), nephrotic syndrome
Ddx: **Crackles** - lung congestion. CHF? // **No JVD** - less concern for HF // **No ascites or jaundice:** less concern for liver causes // **No tachycardia** - less concern for thyroid disturbances
T**hrombocytosis, anemia, leukocytosis, hyperkalemia, low albumin** - AKI? Nephrotic syndrome (maybe secondary)? Nephritic overlap (touch high BP, anemia) - membranous proliferative GN
Kidneys issue + pneumonia + bone lesions - all related to one condition X complication
Minimal amount of proteins on UA + hypoalbuminemia: importance of urine albumin to creatinine ratio

TOO MANY FINDINGS -> MAKE A PROBLEM LIST: Nephritis, pulmonary lesions, bone lesions. And then, ddx: MM? Plasma cell dyscrasia? Monoclonal gammopathy? Anca vasculitis?