7/18/23 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Ricardo (@) Case Discussants: Ravi (@rav7ks) and Mengyu(@)

CC: 59y-old-F w/ 3 weeks of worsening lower extremity edema

HPI: African patient in custody. The bilateral lower extremity edema, start after she recuse to take her lasix as a protest. She received 80 mg IV prior which improved her headache.

Denies other symptoms.

PMH:
HTN,CKD
Chronic Hep.C
Dyslipidemia
IDDM, HEpEF

Meds:
Insulin
Aspart
Atorvastatin
Amlodipine
Guanfacine

Fam Hx:

Soc Hx: drugs, alcohol in the past. No smoking

Health-Related Behaviors:

Allergies:

Vitals: T: HR: 83 **BP:** 177/115 **RR:17 SpO2:** 95%
Exam:
CV: nl , **Pulm:** nl, **Abd:** nl
Extremities/skin: 3+ LLE, no erythema, only local tenderness

Notable Labs & Imaging:
Hematology:
WBC: 5000 Hgb: 9 Plt: 183000
Chemistry:
Na: 138 K: 4.8 Cl: 111 CO2:15 BUN: 33 Cr: 4.5 (bl 1.7) Glucose: 108 Ca: 8.2
Phos: 4.4 Mag:1.9
AST: 57 ALT: 29 Alk-P:190 T. Bili: Albumin: 2.5
Corrected AG: 16 (add (4-Albumin)*2.5))
UA: 17 mg Protein
CXR: small R pleural effusion, central pulmonary congestion, borderline cardiomegaly
Protein /Crea Ratio 3000
BNP : 68k, HIV neg, HepB core IgG reactive, HepB surface ab reactive, Troponin 174/179
ANAs pos, Anti-smith neg , Anti-dsDna neg
C3: 134, C4: 21 (normal)
Protein 24h: 4.9; Echo: Biatrial enlargement, diastolic dysfunction grade 3 w/ EF 55-59% Severe pulm HTN
Worsening Kidney function
Renal duplex: Aorta velocity low, R sided Resistance indices elevated, left mild aorta velocity is significantly increase without evidence of focal stenosis. Possible tortuous area of vessel or stenosis
Urine output decreased to 700ml
Chlorthalidone -> Urine output improved to 3500ml
SPEP, UPEP, IF: nl, anti-PLA2 pending
Kidney biopsy: pending

Problem Representation: An African 59yF w/ 3 weeks of worsening LLE and a PMH of CKD, HTN, chronic Hep C, DM and HFpEF. Labs notable for anemia, Crea 4.5, hypoalbuminemia, BNP 68k, elevated protein/crea ratio and proteinuria of 4.9g/d. Echo shows HFpEF w/ biatrial enlargement.

Teaching Points (Ayesha):
-Lower extremity edema: decreased oncotic pressure in tissues (low protein states - liver disease, renal, heart), lymphatic tissue leakage
-Distribution of edema is important: is the face also involved? The leg?
-Was it a new finding or a part of a chronic condition? - look up north to see if the kidney, heart or liver are involved.
-Is it unilateral/Bilateral → might indicate issues with hydrostatic pressure, localized obstruction in venous system and lymphatic system.
-Any exposures? Infections (Hep C/B → associated with MPGN)?
-Medication contribution → Amlodipine could be contributing to edema.
-Could the degree of the intense edema be causing the tenderness or is it due to inflammation → latter would suggest other etiologies.
- Is the tenderness upon compression something to emphasize on more? Or does it subside by itself with the edema? → Muscle involvement? Bone?
-NAG: RTA, underlying renal etiology → needs more testing.
- Low Albumin → shift focus to kidneys (from leg). Is it being lost in the gut? Liver enzymes abnormal?
-High Creatinine→ MPGN due to hepatitis. get more urine numbers, is it nephrotic/ nephritic?
-Renal biopsy: important to rule out nephritic/nephrotic conditions -The ANA could be a false positive - especially in female demographic.
-Low velocity in vessel found on renal duplex→ due to stenosis.
- Creatinine elevation → could be due to a vascular complication
- Lasix stress test: to check for intact kidney function → incase patient needs hemodialysis.