04/18/25 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Zakariyya Ellemdin **Case Discussants**: Rabih and Reza

"When the clot thickens"

Scribing (Nikola)

CC: 19 y/o F presenting with **new-onset quadriparesis** and **confusion**.

She had been admitted days earlier for **presumed pyelonephritis**, but deteriorated, developing **severe respiratory distress**, requiring high-care admission and BiPAP.

HPI: at baseline she is well

1 day of right flank pain, however with no dysuria or urinary urgency.

2 weeks of worsening dyspnea, orthopnea, bilateral lower limb edema and PND

ROS: denies: CP, fevers, joint symptoms, nausea/vomiting

PMH: 8 weeks prior, she had given birth where she was discharged with the provisional diagnosis of Peripartum CMP

Meds:
Furosemide, Iron supplements

Fam Hx: no relevant FHx

Soc Hx: Unemployed, married, 1 child, not currently sexually active (1 partner no known STIs)

Health-Related Behaviors: no alcohol, no tobacco use

Allergies: None

Vitals: T: 37.4 **BP:** 110/68 **RR:** 20-26 **HR:** 120 **Sat:** 98% on BiPAP with FiO@ of 40%
Exam: Gen: appears unwell, no conjunctival pallor, no jaundice, no lymphadenopathy
CV: bl pitting edema, JVD, displaced apex impulse, S1+S2+S4+pericardial rub
Pulm: marked resp distress, accessory muscle use, bl basilar crackles
Abd: right flank tender, no masses, no HSM
Neuro: increased tone in upper limbs, brisk reflexes, power ⅗ upper and lower limbs, CN 2-12 intact, GCS 14/15, **Skin:** Rash

Notable Labs & Imaging:

Hematology:
WBC: 11.7 (neutros 83%)Hgb: 9.0 Plt: 56 -> 8 on day 3 , MCV: 85
Chemistry
Na: nl K: nl Cr: 5.65 (bl 8 wks ago nl) BUN: 33, CRP:60 ESR: 29
INR / PTT/ Fibrinogen: all nl, D-dimer: 1.22 (unl: <0.25)
Urine studies: Urine PCR: 1g/24H, MC and S: 50K, erythrocytes, muddy casts, no growth
TB neg, Hiv neg, Syphilis: RPR titre 8 (prev. nl 8 weeks prior)
Reticulocyte count: 6.5% (high); LDH 706; Haptoglobin low; Ferritin nl; Direct Coombs: Positive
Blood cultures neg 3x; serologies neg for: Bartonella, Coxiella, Brucella, Coxsackie and Legionella
Complements: C3: 0.32 (0.9-1.8), C4: 0.03 (nl 0.1-0.4); Troponines: persistently neg
Smear: true thrombocytopenia and schistocytes
RF nl, anti-GBM, ANCA, ANA; anti dsDNA all neg; ADAMTS13: activity >50%
Highly positive: Anticardiolipin IgG, Anti-B2 glycoprotein and lupus AC
Imaging:
EKG: sinus tachy
CXR: cardiomegaly and severe pulmonary edema
Echo: severely reduced LVEF <20%, global hypokinesia, tethered, abnormal thickened mitral valve
(non-con) CT: focal hypodensities in the right centrum semiovale and corona radiata (internal watershed infarcts) + right post. Parietal hyperdensity (laminar necrosis)
Cardiac MRI: small pericardial effusion, valves nl, coronaries nl, suggests non-necrotic myocarditis with severe LV dysfunction
Skin Bx: mild chronic inflammation, no vasculitis
Renal Bx: some glomerular necrosis and evidence of ischemia, chronic interstitial inflammation. Focal Tubular necrosis with luminal RBC. IgA, IgG, IgM, C3 stains all neg

Dx : Catastrophic antiphospholipid Syndrome

Problem Representation: 19 y/o F, presents with new onset quadriparesis and confusion is found to have low Hb and platelets and schistocytes on a peripheral smear and strongly positive Anti-cardiolipin, Anti B2-glycoprotein and Lupus anticoagulant.

Teaching Points (Lera):

"Just one schistocyte in the right context is enough."

Know your patient:

- ***Young age*** -> Bad luck? Bad genes? Risky behavior?
- ***Take known Dx with a grain of salt.*** Pyelonephritis -> retroperitoneal pathology? Referred pain? Connection to CC? No dysuria ≠ no pyelonephritis, but flank pain in the setting of HF is concerning (embolism?) -> imaging, LDH, UA!

Neurology explained:

- ***Quadriparesis*** -> What is the localization?
- Symmetric -> CNS >> peripheral NS (hyperreflexia + increased tone!). + confusion -> brain >> spinal cord.

Looking into the heart:

- ***Anatomical approach*** -> Rhythm problems? Structural (endocardium / myocardium / pericardium)?
- Pericardial rub -> ***pericardial inflammatory pathology.*** But is it enough to explain both LH and RH failure? Maybe with constrictive pericarditis -> BNP will be Nl (no RA distention).
- ***Additional considerations***. Acute hypoxemia -> LH failure (peripartum CMP?) + Endocardium / myocardium with low EF problem -> systemic embolism?

The pivotal point:

- 3 lines down -> BM, 1 line down -> periphery, ***2 can be anything*** (if plt + Hgb = worry about ***peripheral*** + ↑ D-dimer!) -> PBS, LDH
- MAHA = micro (radiologist should never see the clot). Can there be ***micro + macro?*** MCC cancer -> marantic endocarditis + TMA // SLE -> Libman-Sacks endocarditis + TMA (RPR false positive?).
- TMA that likes to affect the skin -> ***APLS.***