



02/16/24 Morning Report with @CPSolvers



“One life, so many dreams” Case Presenter: Mark (@Mark_Heslin) Case Discussants: Rabih (@rabihmgeha) and Reza (@DxRxEdu)

CC: A 37 yo female presenting with 2 months of progressive dyspnea on exertion.

HPI: She developed left leg bruising swelling 2.5 months ago-> doppler -ve for clot-> Continued to have b/l LE rash and progressive dyspnea -> CBC revealed anemia and iron profile showed low iron, EGD and colonoscopy were normal, menorrhagia 1 wk prior , 5 infusions of iv iron-> no improvement Mirena placement

ROS: Denied joint pain.

PMH: Stroke in 2017 PFO, Factor V Leiden +, +RF, CCP (serologic dx of RA)

Meds: Rivaroxaban, Cetirizine

Fam Hx: Father has MVP Mother has asthma.

Soc Hx: No tobacco, no drug, works as school teacher

Health-Related Behaviors:

Allergies:

Vitals: T: afeb HR: 119 bpm BP:99/66 mmHg RR: pm SpO2: 88% at RA ->2L NC
HEENT: nl **CV:** Elevated JVP, systolic murmur left lower sternal border
Pulm: nl, no crackle **Abdomen:** Soft non tender **Neuro:** intact
Extremities/skin: Cool extremities, asymmetric swelling on the left leg (upto knee), and petechiae on the ankles.

Notable Labs & Imaging:

Hematology:

WBC:3.7 (with lymphopenia) Hgb: 7.2 MCV:78 Plt:246
PBS: No schistocytes Reticulocytes: 206K

Chemistry:

Na: 131K: 3.3Cl: 101 HCO3:16 BUN: 13 Cr:0.73 glucose:110 Cr 1.73
AST: 7 ALT: 10 Alk-P: Albumin: Total Bilirubin: 2.1 Indirect bili 1.6
Hepatitis: Normal serology, HIV: nl

NT Pro BNP: 4300 TSH:nl

Ferritin:99 TSAT: 15, FE: 34 (low) Haptoglobin: 215, LDH:183, Fibrinogen: 357 ESR 32 CRP 7.7

ANA, Anti-ds DNA, ANti SSA/B, Complements, Anti CCP, copper/zinc, Hb electrophoresis:nl

Folate 4.8 B12 1100

Imaging:

CXR: NI EKG: R-axis deviation

CTPA: No PE, small pericardial effusion

V/Q scan: Negative for CTEPH

TTE:65% EF, RV dilated, apex forming, dec RV function, Pericardial effusion
RHC: R to L sided shunt, RA 7, PA 67/26 (mean 41) PCWP:6, PVR: 11.9, SVR: 2196

ICU-> Pulmonary vasodilators and inotropes-> Improvement

Dermoscopy: Corkscrew hair and perifollicular hemorrhage -> **Vit C:Undetectable**

Dx: Pulmonary hypertension induced by Scurvy

Problem Representation: A 37 y/o female with PMH of stroke & Factor V leiden mutation (+) under Rivaroxaban presented with two months of progressive dyspnea on exertion, leg bruising & swelling, petechiae in ankles, & elevated JVP. IV iron did not improve her symptoms. After extensive workup, RHC was found to significant for findings concerning for pulmonary hypertension and dermoscopy for corkscrew hair with perifollicular hemorrhage.

Teaching Points (Tansu):

Subacute disease: 1) Subacute presentation of a common disease 2) Compressed version of a chronic disease.

Dyspnea@Bedside: Keyword: Exertion (Walk the pt. Check the HR, SO2).

95% → Heart/Lungs. Don't forget the blood! Other: Thyroid, met. acidosis, deconditioning. **Physical exam is more specific than sensitive, do it carefully.**

Rivaroxaban (DOAC) → Rash = Bruising, Petechiae? → Bleeding schema. (1) Trauma? (2) Coagulopathy (platelet, PT, PTT)? (3) Vessel [vasculopathy, vasculitis; thrombosed vessels → proximal increase in pressure → vessels burst]). Other signs of bleeding/thrombosis (no clue for thrombosis here. There's hemarthrosis in the knee + feet look symmetric.

Petechiae + Dyspnea = Overlap → Bleeding into the lungs or elsewhere? → Pulmonary vascular system eval w/ CT w/ contrast.

Stroke in young pt: Prioritize Hemorrhagic 2/2 trauma. Ischemic (pump (IE), pipes (dissection), plasma).

High JVP + lungs clear: R-sided heart problem (RV, TV), P-HTN, or a chronic L-sided problem tempered via active lymphatic drainage in the lungs? → Echo to gain clarity.

PR: Anemia + HF + Bleeding w/ surface ft + Hemarthrosis

Hemarthrosis w/ normal Plt, INR, M.C. problem: vit C def.

Scurvy → Check for poor dentition, bleeding in wounds, joints.

Localizing the P-HTN: (Using mPAP, PAWP, PVR to guide us) Pre-capillary, Post-capillary, Both. // Classically 5 groups of P-HTN.

Group 1 (PAH) → Inflammatory vs. Non-inflammatory causes (Nutritional- Vitamin C, B12 deficiency.

(-) CTEPH on V/Q scan: Useful for Ddx. of class 1 vs. class 4. ((-) CTEPH R/O Class 4).

Vit C, Copper: Spare Plt, leukopenia.

B12, Folate: Anemia, thrombocytopenia

Dermoscopy → With Corkscrew hair!!!