6/10/20 Morning Report with @CPSolvers

***Case Presenter**: Paul Kunnath **Case Discussants**: Arturo Hernández (@arturohdez_i) and Ryan Bonner (@RWBonner91)*

CC: dyspnea, lower extremity bruises

HPI: 28 yo M with a h/o hemophilia A presents with lightheadedness, dyspnea, lower extremity bruises
Started 1 week prior, has been progressive
No hematuria, hemoptysis, GI symptoms

At neighboring hospital: HR low 100 ,HB: 5.7 > 2U pRBCs, 5U factor viii, transferred to tertiary center due to c/f possible hemophilic crisis

Past hemophilia history:
- Normal Hgb 6 months prior
- no bleeding in past 3 years
- As teenager, RLE hemarthrosis > knee surgery

PMH:
Hemophilia A
Knee surgery (teenager)

Meds:
No meds

Fam Hx:
Brother with Hemophilia A

Soc Hx:

Health-Related Behaviors:
No tobacco, no EtOH, no drugs. No travel.

Vitals: **T**: 98.5 **HR**:92 **BP**:108/67 **RR**:18 **SpO_2**: 100, BMI 21
Exam:
Gen: no acute distress, awake and alert
HEENT: Icteric sclera
CV, **Pulm and Abd**: normal
Neuro: CN II-XII, strength 5/5 normal, normal grip
Extremities/Skin: Jaundiced, ecchymoses on anterior thighs bilaterally, circumferential in calf, diffuse non-blanching petechiae and nonpalpable purpura

Notable Labs & Imaging:
Hematology: After transfusion
WBC: 3.6 (normal differential) Hgb:7.3 MV: 97 Plt 258, Normal smear

Chemistry:
Metabolic panel: Normal
AST, ALT, Alk-P: Normal T. Bili: 3.7 Indirect Bili: 0.8
Albumin: 2.7 Total protein: 6.9, Reticulocytes: 1.4,
LDH: 230, Haptoglobin: 120, PTT: 55, Iron: 103
Factor VIII activity: 41% (post transfusion) > 17% (Normal 50-150%),
Factor IX 140%, Iron panel: Normal, B12: 177, Folate: 2.2, vWF: normal
HIV,Hepatitis B and C: negative . ESR 21, CRP 22, vasculitis workup (MPO, PR3, c-ANCA, p-ANCA, cryoglobulins): negative
Vitamin C: undetectable, Vitamin D: 5.8, Celiac and IBD serology: negative

Imaging:
EKG unremarkable
CT chest, abdomen, pelvis: no evidence of hemorrhage

Dx: Ascorbic acid deficiency due to poor intake

Problem Representation:
28 yo man with a history of mild hemophilia A presenting with dyspnea and diffuse ecchymosis found to have hypoproliferative anemia without evidence of bleeding on imaging

Teaching Points (Anna):
Approach to dyspnea: use the time course, risk factors, physical exam to narrow your differential
- Pulm: airways (asthma, COPD), vasculature (PE, pHTN), parenchyma (edema, PNA, DAH), pleura (PTX, effusion)
- Cardiac: ACS, heart failure, valvulopathy
- Hematologic: anemia
- Metabolic: acidosis, hyperthyroidism
- Other: neuromuscular weakness, anxiety

The bleeding patient:
- Platelet dysfunction: mucosal bleeding, petechiae
- Coagulopathy: joint bleeding, deep tissue bleeding, muscular bleeding

Mechanistic approach to anemia
- Decreased RBC production (BM failure, infiltrative disease, medication effect, nutrient deficiencies)
- Increased RBC destruction (hemolysis, sequestration)
- Blood loss

Petechiae/Purpura: vascular wall integrity - vasculitis vs nutritional deficiency