11/21/23 POCUS Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter:Ravi (@rav7ks) Case Discussants: Debora (@deboracloureiro) and Yazmin (@minheredia)

CC: 56F w/ unilateral foot pain, numbness and swelling

HPI: 56 yo female with foot pain, numbness and swelling. Patient has history of PAD, seven days ago started to feel pain in upper part of the leg - primary care physician diagnosed as sciatica pain. But then she began with symptoms of pins and needles, constant and worsing dull achy pain. Started to have fevers for the last two days. Denies dyspnea or chest pain.

PMH: DM type 2, HLD, HTN, peripheral arterial disease, coronary arterial disease (2 stents), Surgery: left and right axillobifemoral bypass 2 years ago

Meds: metoprolol, losartan, aspirin, apixaban, statin, insulin, gabapentin

Fam Hx: None

Soc Hx: None

Health-Related Behaviors: 30-year smoking history

Allergies: NKDA

Vitals: T: 38.9 **HR:** 98 **BP:** 200/100 **RR:** 22 SaO2:96% RA

Exam:

Gen: She is looking toxic, not well

Extremities/skin: cold and pale left leg, there is no sensation from mid calf to lower part of the leg, unable to move toes and ankle, unable to feel the pulses, leg is massively swollen compared to the right. Moving the leg elicits eliciting pain. Right leg is not so swollen but is also cold, pulses are obtainable by doppler, no pain.

Notable Labs & Imaging:

Hematology: WBC: 15 Hgb:12 Plt: 334.000

Chemistry: Cr: wln CPK 293 Lactate 3.7 Bicarb 17 AG 15

Imaging:

POCUS: clot in the common femoral to the great saphenous vein, occlusive left common femoral artery thrombosis

Doppler: Flow in the femoral artery, but no flow in the femoral vein

Impression: extensive DVT + arterial thrombosis

Follow up: Atb were started (vanc + zosyn + clindamycin). Leg is getting worse, cyanotic and cold. CT angio shows gas in the thrombus next to the axillobifemoral bypass graft, patient is declining, WBC and lactate increasing.

Patient was taken to surgery: extensive muscle and fascia necrosis, fat necrosis -> high above the knee amputation, started on aspirin, plavix and heparin. Intraoperative culture: growth of MRSA, enterococcus, proteus.

Patient was not correctly taking apixaban -> arterial + venous thrombosis. COVID negative. Autoimmune tests will need to be worked up. Patients was maintained on heparin.

Dx: phlegmasia + acute limb ischemia / massive thrombosis

Problem Representation: 56F w/ PMH of DM, PAD, CAD and smoking presenting with unilateral foot pain, numbness and swelling, which touch elicits excruciating pain.

Teaching Points (Umbish): **POCUS**

- ★ Detailed hx to differentiate b/w **neuropathic vs vascular**
- ★ **PAD**> limb ischemia
- ★ **Fever**>infection
- ★ **Ddx:** Acute limb ischemia, diabetic neuropathy, DVT, compartment syndrome, cellulitis
- ★ **SIX P's of acute ischemia**: pain, pallor, poikilothermia, pulselessness, paresthesia, and paralysis.
- ★ **High lactate plus inc WBC**> septic shock
- ★ **POCUS:** helps compress the veins, lack of compressibility> could be a clot> common femoral to common saphenous to popliteal.
- ★ **Anechoic-to-hypoechoic** appearance>black to grey on ultrasound>presence of a thrombus/clots.
- ★ Most definitive criterion of DVT is the **absence of full collapsibility**
- ★ **Compression is the most sensitive sonographic indicator for DVT**
- ★ **Extensive DVT**> what's NBS? Contraindication to thrombolysis? Anticoagulation vs thrombectomy. Obtain venous and arterial usg
- ★ Gas in bypass graft> Myonecrosis? Clost. Perfringens? Polymicrobial infection **possibly a graft infection with gas-forming bacteria**
- ★ Broad spectrum ABX> gram pos, neg and anaerobes coverage> vanc,zosyn,clinda started> taken to surgery> myo and fat necrosis> above knee amputation> growth of **MRSA and enterococcus**
- ★ **Phlegmasia Cerulea Dolens**> serious complication of DVT