02/26/24 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter:Dr. Hayley Braun(@HayleyBraun7) Case Discussants: Youssef with Dr. Marissa Baranowski

CC: Male patient in his early 20s consulted for bilateral lower extremity cellulitis.

HPI: Patient had history of recurring bilateral leg nodules, which were previously diagnosed as cellulitis and received multiple courses of ATBs. He reported some improvement but the nodules never went away.

ROS: Intermittent lower extremity edema, no chest pain, palpitations, orthopnea, or paroxysmal nocturnal dyspnea. He experienced shortness of breath, pneumonia in the past year, and worsening asthma. Also, he reported a heavy sensation on legs and presence of nodules.

PMH:
DVTs
Allergies
May-Thurner Syndrome
Asthma
Eczema

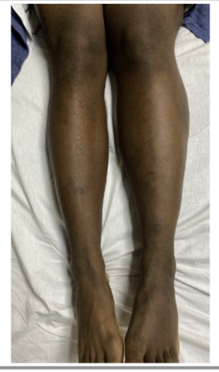
Meds: None.

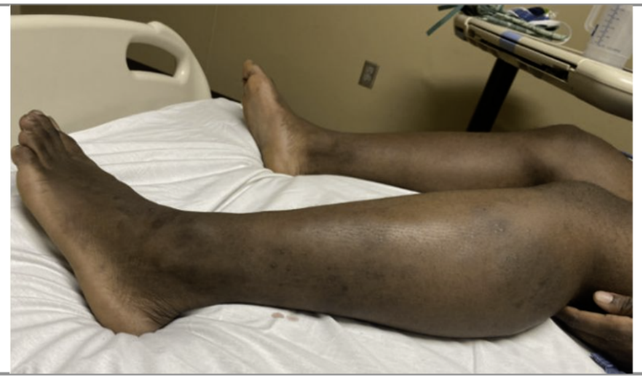
Social Hx: Works in a restaurant. Trains as a boxer.

Health-related behaviors: No infection, travel, incarceration hx, or gardening.

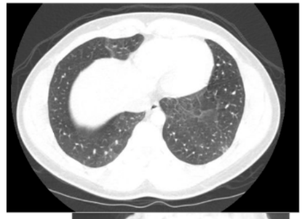
Allergies: None

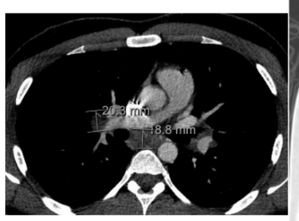
Physical Exam:

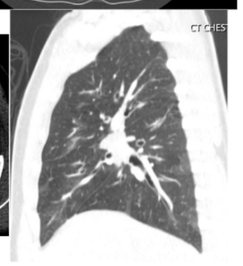




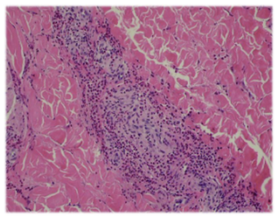
Notable Labs & Imaging:
Hematology:
WBC: 17k
Eosinophils: 63% & total count 10.3 (0-0.5 normal count)
CRP: 23.4
HIV, syphilis, hepatitis, TB, Strongyloides, Histoplasma, Cryptococcus, Toxocara: negative.
ANCA and RF negative. SPEP normal.
Peripheral smear: Eosinophilia
No hematuria, proteinuria and normal prot-creat ratio
Imaging:
CTPE: scatter GGOs, no PE, presence of nodules

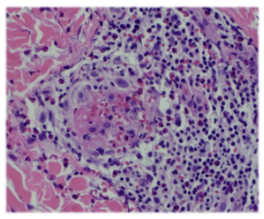


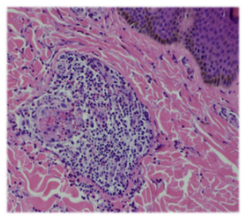




Skin Biopsy: perivascular infiltrate with predominantly eosinophils, small vessel eosinophilic vasculitis affecting superficial dermal channels.







Dx: Eosinophilic Granulomatosis with Polyangiitis

Problem Representation: A male patient in his early 20s w/ a PMH of worsening asthma, eczema, pneumonia, DVTs 2/2 May-Thurner syndrome, p/w persistent bilateral lower extremity nodules, intermittent L-sided LE edema, shortness of breath. On his labs, he has a total eosinophil count of 10.3 (63%).

Teaching Points (Jia):

- Cellulitis diagnosis
- Based on the history and physical examination; blood and skin test may help with diagnosis with bacterial evidence
- Sometimes it is overcalled in clinical settings; rarely happen as multiple times.

- Dermatology terms
Papule: less than 1cm; plaques: >1 cm; nodule: under the skin
- SOB+pneumonia make it more likely that systemic disease involves skin
- Detailed PE: to feel whether it is indurated, subcutaneous, erythema, warm
- Eosinophils elevation: bugs vs drugs
DDX: Eosinophilic cellulitis, leukemia, malignancy, granulomatous; ID etiology: parasitic infection
- Skin biopsy:
Indurated area is a good place for biopsy;
Further test can include H&E, culture (atypical infection) and immunofluorescence
- Eosinophilic vasculitis: specific sign for EGPA
- EGPA
Cutaneous manifestation:
1) hemorrhagic lesion: palpable purpura (most common), petechiae, ecchymosis, hemorrhagic bullae
2) Dermal or subcutaneous papules and nodules,
3) Less frequent findings: urticaria, erythematous macules and livedo reticularis
Classification Criteria by American College of rheumatology:
> 6+ score for diagnosis, sensitivity 85%, specificity 99%
> Enter requirement: pathological evidence for vasculitis
> Score system:
- Clinical criteria: obstructive airway disease (+3), nasal polyps (+3), mononeuritis multiplex (+1)
- Lab and biopsy criteria: Eosinophil count more than 1x10^9 (+5), extravascular eosinophilic-predominant inflammation on biopsy (+2), positive cANCA or anti-PR3 (-3), hematuria (-1)