10/23/24 Morning Report with @CPSolvers

*"One life, so many dreams" **Case Presenter**: Siddharth Patel **Case Discussants**: Sharmin Shekarchian(@sharminzi) and Hee Mun (@heemun8)*

CC: 55 y/o F AA presented to the OP clinic for diffuse pruritic rash of 24hrs

HPI: The rash started 48 hrs after the 3rd dose (1st booster) of mRNA COVID-19 vaccine (Moderna).

Previously she had an allergic reaction to penicillin, but none to any of the vaccines including the previous 2 doses of the mRNA COVID-19 vaccines.

3 mm punch biopsy on R medial leg was taken.
Patient started on topical mometasone cream, oral prednisone & hydroxyzine.

48 hrs later (Day 5 of rash onset): Rash worsened - larger with persistent itching, burning & b/l ankle pain

PMH:
Back pain for months

Meds:
Gabapentin

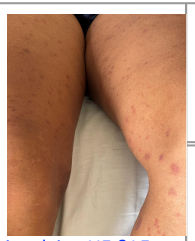
Fam Hx:
n/a

Soc Hx: n/a

Health-Related Behaviors:
n/a

Allergies:
Penicillin

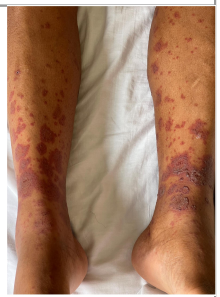
Vitals: T: 98.6F **HR:** 82 **BP:** 128/72 **RR:** 20/min **SpO2:** 97% on RA

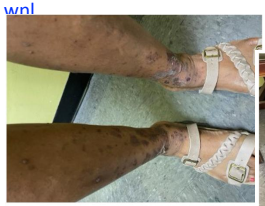


Exam:
Gen: no mucocutaneous involvement
HEENT: no lymphadenopathy
Abd: no abd pain or hepatomegaly
Extremities/skin: maculopapular, erythematous, non-blanching lesions predominantly on b/l UE & LE. Few scattered lesions on chest & back.
48hrs later: Coalescing erythematous patches with palpable purpura involving UE &LE. Some of the lesions developed desquamation. New maculopapular lesions with occasional vesicles were also observed. Normal ankle exam.

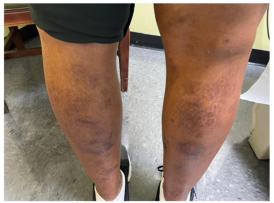
Notable Labs & Imaging:
Hematology:
WBC: 12k eosinophil:0 Hgb: 12.7 Plt: 473

Chemistry:
Na, K, Cl, HCO3:WNL BUN: 19 Cr: 0.8 CRP:4.2
DDimer:8 Glucose, Ca, Mag: WNL
AST, ALT, Alk-P, Albumin, Total Protein: WNL
PT,PTT,INR: wnl
Hepatitis panel, Blood culture, HIV, ANA, Cryoglobulin, ANCA: -ve
RPR : -ve Complement level: wnl
Urinalysis: normal
Imaging:
US: -ve for any DVT of LE
Skin biopsy:
Neutrophilic infiltration of dermal blood vessels





10 days since the onset of rash



45 days since the onset of rash

Started on IV steroids & antihistamines
Dx: Cutaneous small-vessel vasculitis (Leukocytoclastic vasculitis) due to COVID-19 vaccine
discharged on oral prednisone taper for 30 days w/ significant improvement

Problem Representation: 55y/o AA F who recently received 3rd COVID-19 vax presented with diffuse pruritic rash for 24hrs. Rash is maculopapular, erythematous, non-blanching, worsened & coalesced→ erythematous patches w/palpable purpura & desquamation. No other S&S. Skin biopsy revealed neutrophilic infiltration of dermal blood vessels → Leukocytoclastic vasculitis due to COVID-19 vax

Teaching Points::
Approach to rash: "what company does the rash keep?"
- Time course
- Exposures
- Distribution, extent, depth
- Associated symptoms and systemic signs?
- Characterization: blanching vs non-blanching? Palpable, non-palpable?

Anti-racism: teaching on dermatologic conditions emphasizes lighter skin tones leading to frequent misdiagnosis for people with darker skin
Non-blanching rash: extravasation of blood vessels
- ddx broad: vasculitides, immunologic, infectious, drug reaction

Palpable purpura: vasculitis vs non vasculitis
- Vasculitis: LCV, IgA, cryoglobulinemia, ANCA-associated (GPA, EGPA, MPA), CTD associated (SLE, Sjogren's), HCV, HBV
- Non-vasculitis: meningococcemia, gonococcal, rickettsia, endocarditis, drug reactions

Cutaneous small vessel vasculitis: limited to skin, have to rule out other organic involvement
- Path: leukocytoclastic vasculitis (neutrophilic infiltration of vessels)
- Ddx:
  - Systemic vasculitides: ANCA associated, IgA (HSP), cryoglobulin
    - Rule out GN with UA, check complements
  - Infectious
  - Drug reactions, including vaccines
- Treatment: discontinue, drug, treat infection, and steroids