Rashes that Demand Attention

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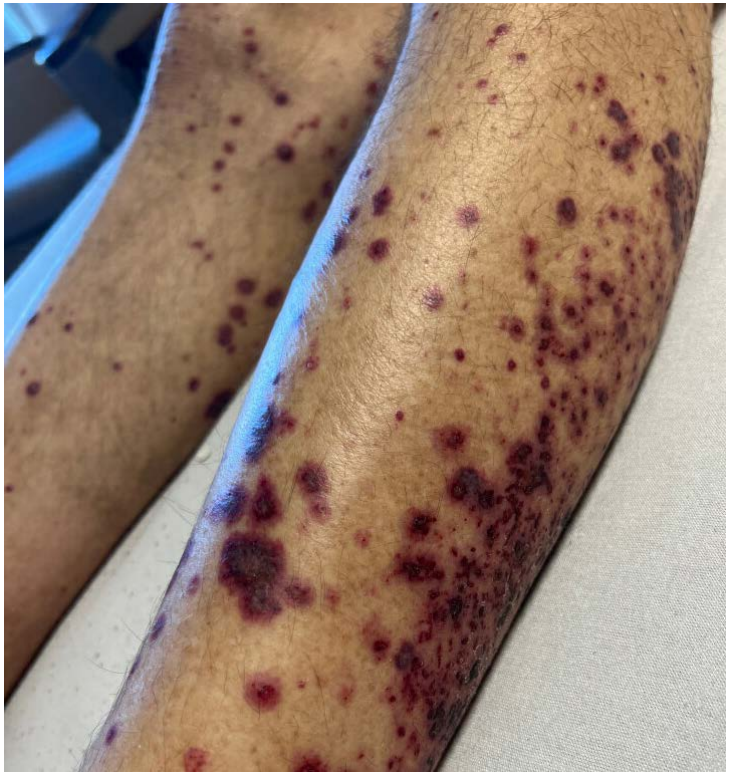
Case 1

44-year-old male with h/o RA

1 week history of purpuric rash involving extremities > trunk

Recent URI-like symptoms

Mild joint pain in lower back, fingers



Small Vessel (Leukocytoclastic) Vasculitis

- Palpable purpura favoring lower extremities, dependent areas
- Various triggers
  - Infection (esp. group-A Strep)
  - Inflammatory/ Autoimmune disease (SLE, Sjogren, RA)
  - Medications (antibiotics, NSAIDs)
  - Idiopathic (50%)
- Usually resolves within 3-4 weeks

Best Next Steps?

A. UA, BUN/Cr
B. All of the above **plus** CBCd, LFTs
C. All of the above **plus** ANA
D. All of the above **plus** infectious serologies (HIV, HBV, HCV, ASO)

My Approach

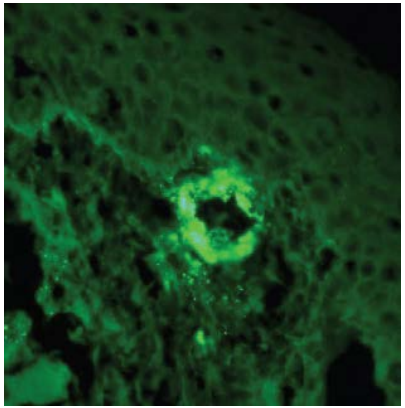
- For those **without** concerning symptoms/ persistent (>6 weeks) disease:
  - UA and BUN/ Cr

- For those **with** concerning symptoms (new arthralgias, hematuria) or persistent disease
  - CBC, CMP
  - HBV, HCV, HIV, and ASO serologies
  - ANA, RF

- In select patients, consider
  - SPEP/ UPEP
  - C3, C4
  - ANCAs

Case 1 Cont.

- UA: ++RBCs with casts,
- AKI
- Biopsy & DIF performed
    - Vascular IgA deposition - IgA vasculitis



IgA Vasculitis (Henoch -Schonlein Purpura)

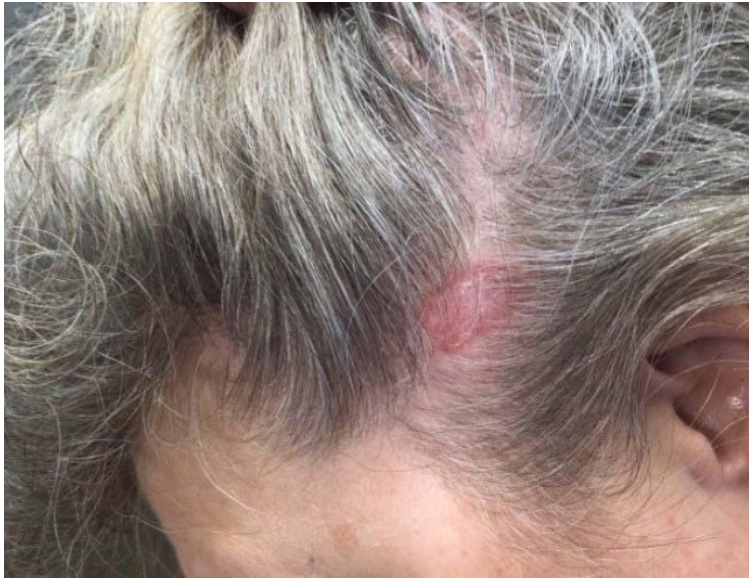
- More common in children, but not rare in adults
- Often preceded by viral URI or Streptococcus pharyngitis by 1-2w
- Drug-triggered in ~20% cases
- Described as a paraneoplastic phenomenon, especially in elderly males with **lung ca**
- **Renal**, GI, and rheumatologic involvement
  - Purpura above waist → more likely to have IgA GN
  - Persistent nephropathy occurs in 8% of patients (rarely renal failure)
  - **Patients with hematuria/proteinuria shoulder be followed**
    - UA w/ micro monthly x 6 months

IgA Vasculitis Treatment

- Prognosis varies
  - 10% have chronic course
  - Correlates with renal involvement
- Topical corticosteroids
- Dapsone or colchicine > prednisone

Case 2

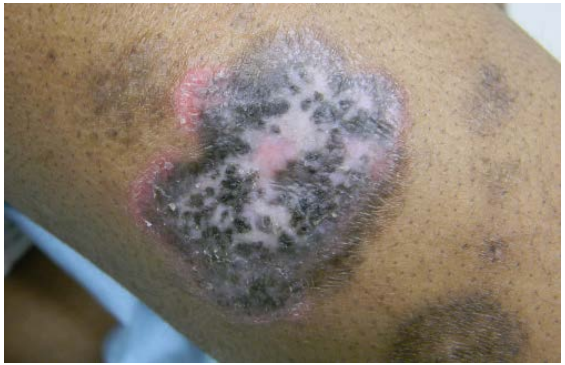
- 57-year-old female, h/o HTN
- Recurrent “sores” involving her scalp that leave scars
- Scattered hair loss
- No response to ketoconazole or hydrocortisone
- Seems to get worse in Spring/Summer, better in Autumn



Diagnosis?

A. Non-melanoma skin cancer
B. Alopecia areata
C. Discoid lupus erythematosus
D. Ketoconazole-resistant tinea capitis

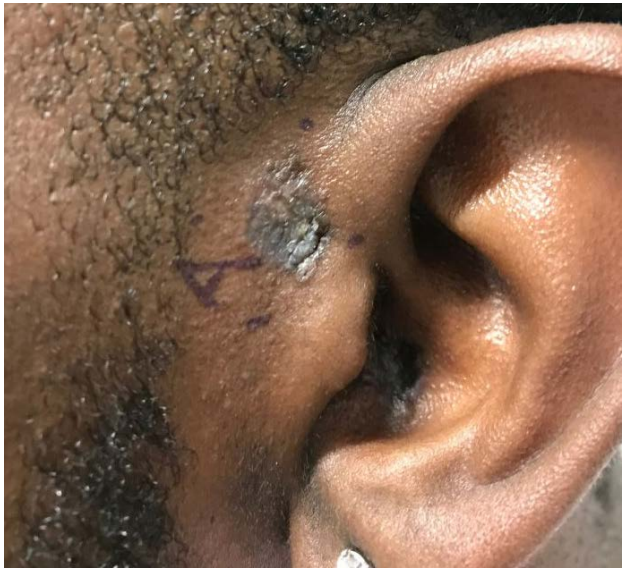
Discoid Lupus Erythematosus (DLE)



- Most common form of cutaneous lupus
- 5-20% cases associated with systemic lupus erythematosus
  - Stronger association with widespread disease
- Females of African descent are most commonly affected
  - Often missed in caucasian patients
- Smoking is a major risk factor
- Early lesions are red discoid plaques, often on head or neck
- These progress to centrally hypopigmented and peripherally hyperpigmented scars

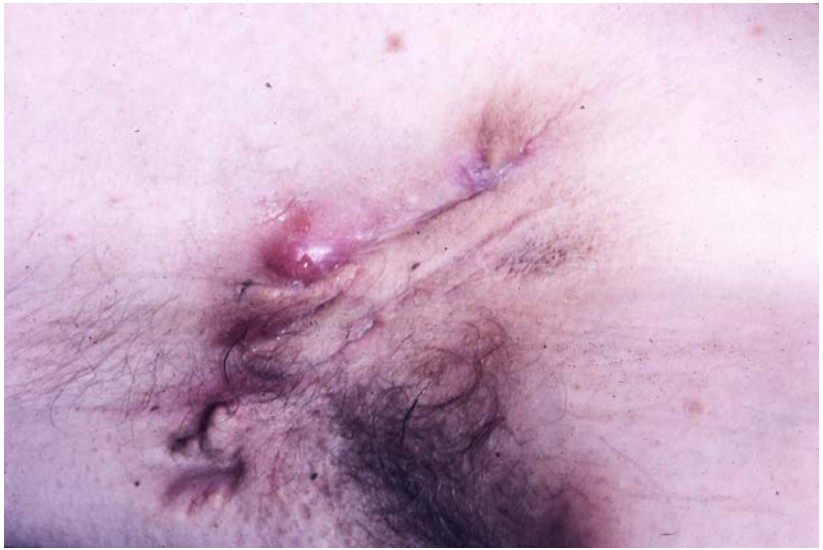
DLE Treatment

- Sun protection
- Smoking cessation
- Topical corticosteroids, calcineurin inhibitors
- Hydroxychloroquine
- Systemic glucocorticoids for flares
- DMARDs



Case 3

- 24-year-old male, BMI 39
- “Boils” involving axillae, groin, and buttocks
- Wound cultures: *Staph. epidermidis*
- Multiple courses of antibacterials, two I&D’s
- Worried about scarring



Diagnosis?

A. Bacterial abscesses
B. Hidradenitis suppurativa
C. Cutaneous Crohn disease
D. Acne inversa

Hidradenitis Suppurativa (HS, Acne Inversa)

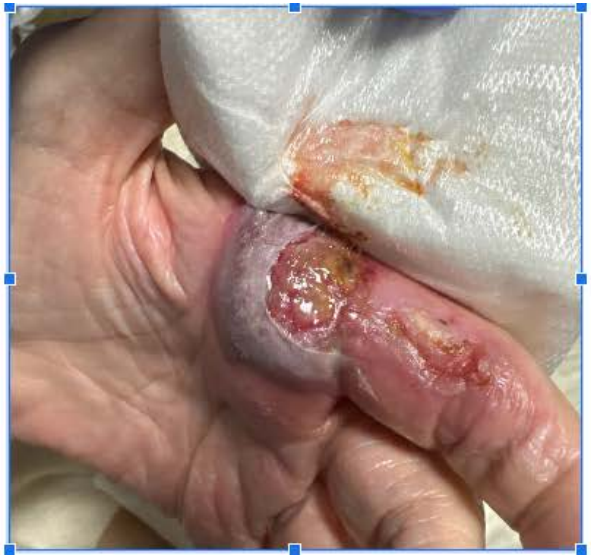
- Pathogenesis revolves around follicular occlusion and intradermal follicular rupture
- This leads to robust inflammation, sterile abscesses, sinus tracts, and scarring
- Appears after puberty
- Most common sites:
  - Axillae
  - Groin
  - Buttocks
  - Pannus
- Potentially severe impact on patient QoL

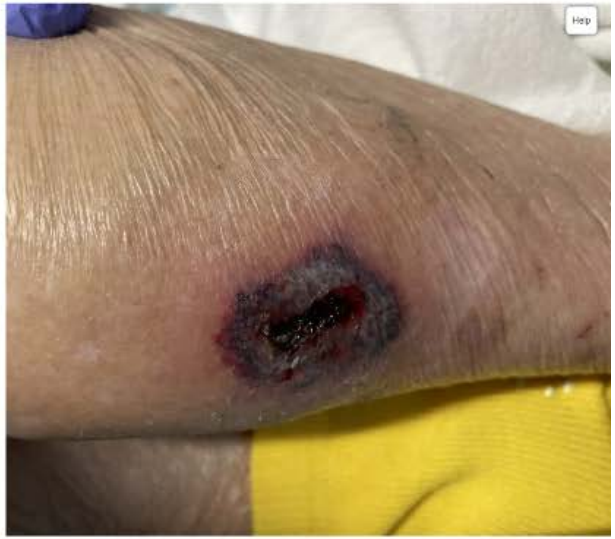
HS Treatment

- Loose-fitting clothing
- Smoking cessation
- Topical antibacterials (e.g. clindamycin), benzoyl peroxide
- Systemic antibacterials (e.g. doxycycline, clindamycin/ rifampin)
- Intralesional corticosteroids
- TNF-alpha inhibitors
  - Adalimumab
- Simple incision and drainage
- Surgical techniques

Case 4

- 76-year-old female
- Presenting with knife wound of left index finger
- An I&D was performed for treatment of presumed abscess
- Wound edges subsequently expanded, with concomitant worsening of a small lesion involving her right leg




Help

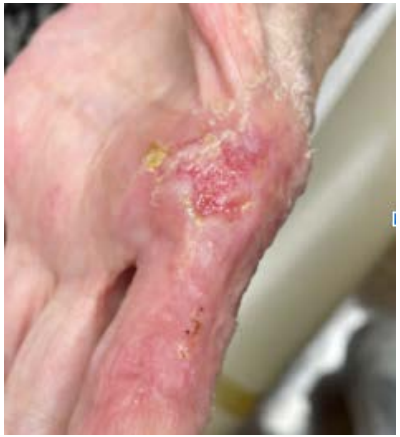
Pyoderma Gangrenosum

- Middle-aged adults
- Half with underlying disorder
  - Inflammatory bowel disease
  - IgA gammopathy
  - AML, CML
- About a third of cases exhibit pathergy
- Often starts as a pretibial pustule (“pimple”)
- Screen for underlying disease
  - Colonoscopy, fecal calprotectin
  - CBC, peripheral smear, SPEP

Case 4 Cont.

- After two weeks of high dose prednisone, her finger wound is improving

- What's the best next step?
  - Taper prednisone over another 6 weeks
  - Add dapsone
  - Trial of intralesional triamcinolone
  - Diligent wound care

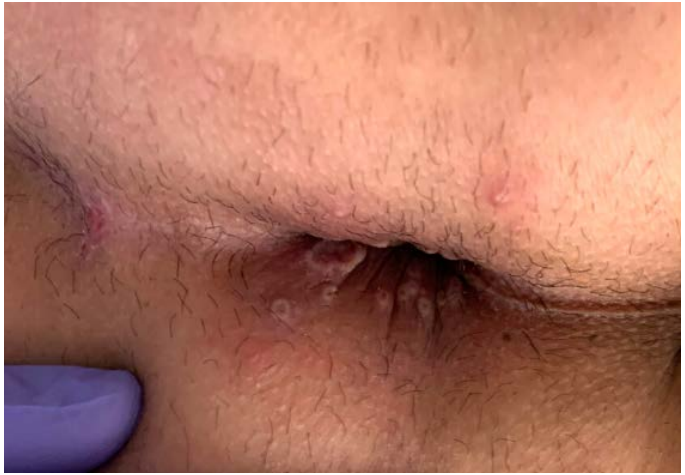


The Two Phases of PG

- Inflammatory
  - Red-violet-grey border
  - Pain
  - Highly exudative
  - Possible systemic symptoms
  - Aggressive anti-inflammatory treatment to minimize final ulcer size
    - Prednisone
    - Cyclosporine
    - Dapsone
- Non-inflammatory
  - Pink to skin-colored border
  - Modest exudate
  - No systemic symptoms
  - No benefit for additional anti -inflammatory treatment
  - Diligent wound care and prevention of infection are key

Case 5

- 25-year-old male, no sig. PMH
- Presenting with rectal pain, bleeding and rash
- Peri-anal lesions noted on exam



Diagnosis?

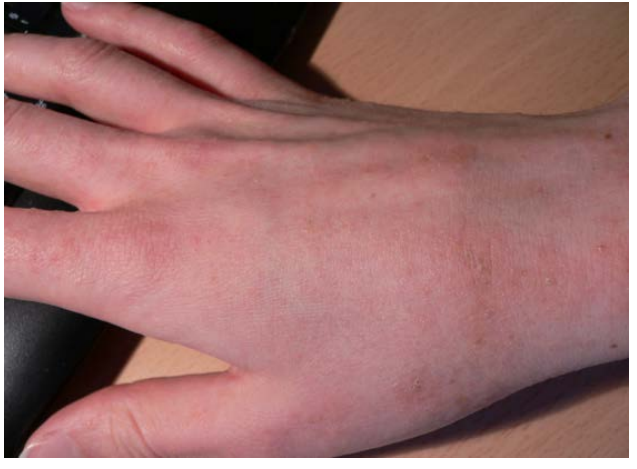
- Condyloma lata
- Condyloma acuminata
- Herpes simplex virus
- Mpox

~~Monkey~~ pox

- Transmitted via respiratory droplets, skin contact, and possibly fomites
- Mortality 1-11%
- Incubation period: 4-21 days, followed by prodrome (fever, malaise)
- Large majority of patients have fewer than 20 lesions
- Most common sites are anogenital and oropharyngeal
- Rash sequence occurs over 2-4 weeks:
    - Macules
    - Papules
    - Crateriform papulovesicles
    - Pustules
    - Crusted papules
- Tecovirimat is approved for the treatment of smallpox, and may be used for patients with severe Mpox or patients at high risk of severe disease, e.g. uncontrolled HIV (cdc.gov)

Case 6

- 24-year-old male experiencing homelessness
- Presents with 3 weeks history of severely pruritic eruption involving hands, wrists, and genitals
- Cannot sleep at night
- Tried his itchy friend’s hydrocortisone cream with no relief

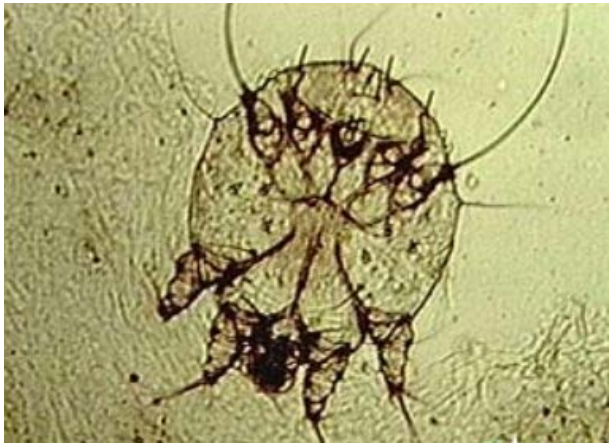


Diagnosis?

- Scabetic infestation
- Contact dermatitis
- Dermatitis herpetiformis
- Tinea corporis

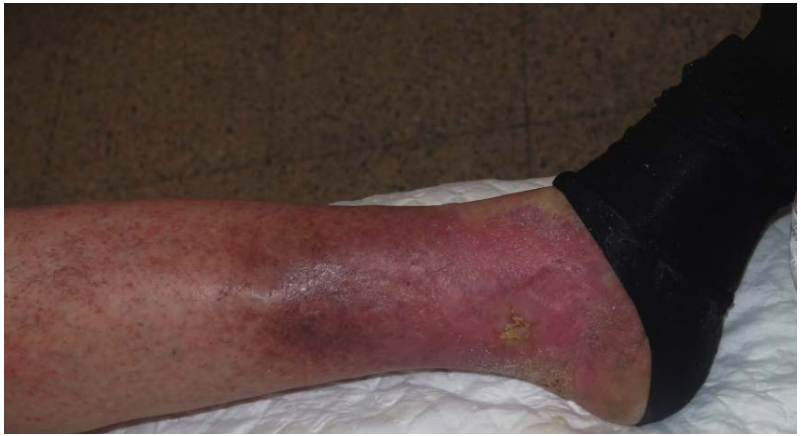
Scabies

- Risk factors:
  - Crowded living conditions
  - Neurologic disorders
- Must treat patients **and** household contacts
- Launder clothing and bedding in hot water
- Permethrin 5% cream
  - Apply from neck down
  - Leave on overnight, wash off in AM
  - **Repeat** in 1 week
- Ivermectin 0.2mg/kg
  - Comes in 3mg tablets
  - **Two doses one week apart**
- Skin lesions and pruritus may take 3 weeks to resolve
  - Antigens remain on skin
  - OK to provide topical steroids after tx



Case 7

- 61-year-old female
- Burning, pruritic eruption involving lower legs x 2 weeks
- No response to topical bacitracin
- Afebrile



Diagnosis?

A. Cellulitis
B. Erysipelas
C. Acute venous insufficiency dermatitis
D. Scabetic infestation

Venous Insufficiency (Stasis) Dermatitis

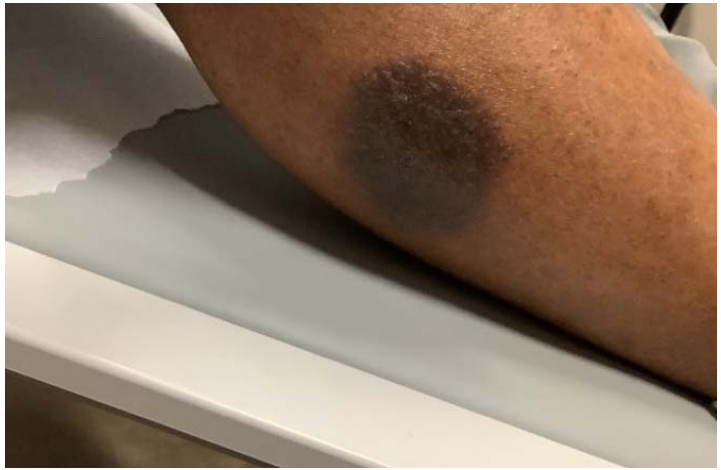
- May mimic cellulitis
  - Erythema
  - Warmth
  - Edema
- Discomfort often described as burning or itching
- Surface wound cultures are not reliable indicators of soft tissue infection
- Look for background features of venous stasis
  - Brown-orange speckled hemosiderin deposition
  - Varicose veins
  - **Medial ankle**/distal leg localization
  - Pitting (not turgid) edema)
- Usually bilateral, unlike cellulitis
- May cause minor elevations in temperature, WBC, ESR/CRP

Stasis Dermatitis Treatment

- Compression
  - Check DP pulse
  - Compression stockings (start at 10-20 mmHg)
- Elevation
  - Ideally above heart
  - Pillows under ankles
- Increased ambulation
- Low to mid-potency topical corticosteroids for acute symptoms
- **Many antibiotics have intrinsic anti-inflammatory properties, so stasis dermatitis symptoms may improve initially, but this findings should not be mistakenly used to confirm cellulitis*

Case 8

- 42-year-old male with recent onset lower back pain
- Presents with a lesion involving calf x 5 days
- Also has similar lesion on penis

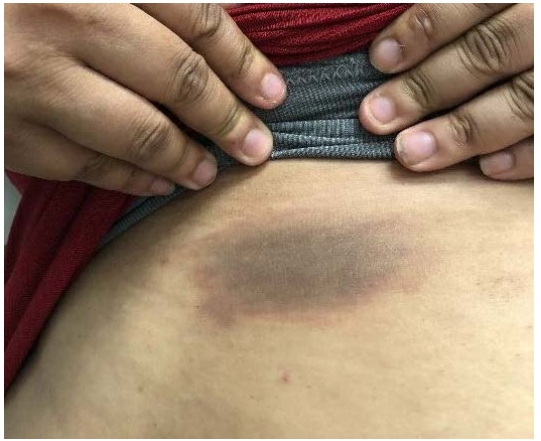


Most Likely Trigger?

A. Herpes simplex virus
B. URI
C. Naproxen
D. Tick bite

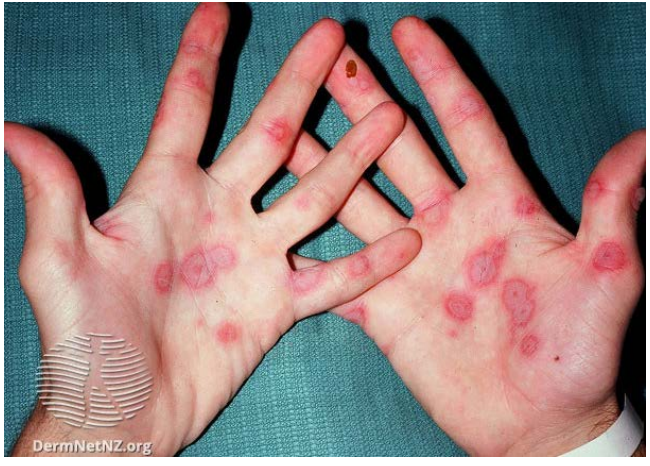
Fixed Drug eruption

- Predilection for genitalia, oral mucosa, and acral skin
- Medication-related
  - Sulfonamides
  - NSAIDs
  - Tetracyclines
  - OCPs
- Appears 1-2 weeks after drug exposure
- Recurs in same location rapidly (<24 hours) upon re-exposure
- Lesions are generally discoid and leave behind hyperpigmentation
- Apart from cessation of culprit drug, no tx is needed



Case 9

- 30-year-old female with history of several STI's
- Presents with sudden appearance of round lesions involving her hands and forearms
- No new medications

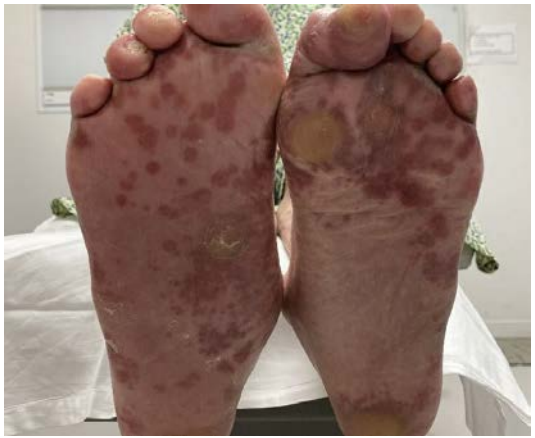


Diagnosis?

- Erythema multiforme
- Erythema migrans
- Syphilis
- Leukocytoclastic vasculitis (LCV)

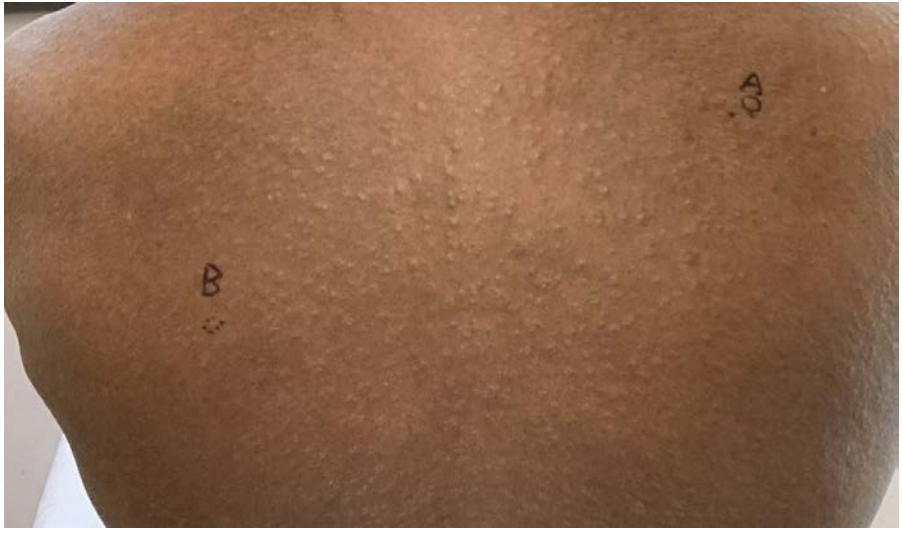
Erythema Multiforme

- Like FDE, an immune-mediated process of skin cell (keratinocyte) death
- Characterized by target lesions (three zones of color)
- Often recurrent
- **Triggered in most cases by HSV**
  - Suppressing HSV outbreaks is key
- Rarely medication or malignancy related
- Usually begins with acral surfaces
- Oral mucosa, genitalia may be involved



Case 10

- 28-year-old male
- Rash involving trunk, extremities x 2 weeks
- History of STI's



Diagnosis?

A. Lichen planus
B. Sarcoidosis
C. Syphilis
D. Folliculitis

Syphilis

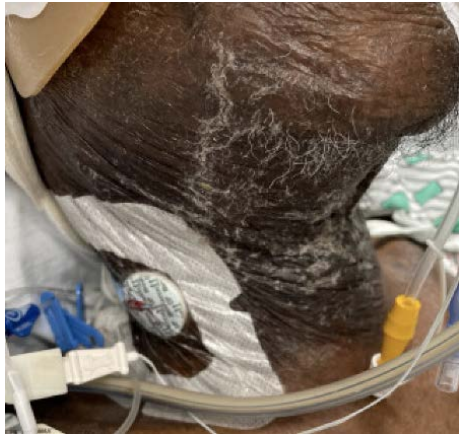
- Primary syphilis (chancre) is fairly recognizable
- Secondary syphilis has a highly variable presentation
  - Morbiliform, papular or papulosquamous rash, often with volar involvement
  - Split papules (syphilitic perleche)
  - Mucous patches
  - Condyloma lata
- Serologic testing either treponemal or non-treponemal
  - Treponemal: FTA-ABS
  - Non-treponemal: RPR, VDRL
- Skin biopsy with immunohistochemical staining can identify organisms, but sensitivity varies (60-99%)
- Screen for other STI's

Treatment of Syphilis

- IM benzathine penicillin G (2.4 million units)
  - Appropriate for primary and secondary disease
  - Other phases: 3 doses (7.2M units)
- Follow non-treponemal titer
  - Check RPR 6 months after treatment
  - Treponemal tests remain positive throughout life
- Report to local health authority

Case 11

- 52-year-old male h/o alcohol abuse
- Scaly rash involving face, neck, and extremities
- Associated with increasing confusion, fatigue



Diagnosis?

A. Atopic dermatitis
B. Psoriasis
C. Crusted scabies
D. Pellagra

Pellagra

- Classically characterized by 3 D’s
  - Dermatitis
  - Diarrhea
  - Dementia
- Photodistribution
  - Extensor extremities
  - Neck
  - Face
- Risk factors
  - HIV
  - Alcoholism
  - Crohn’s disease
  - Carcinoid tumor
  - Valproic acid
  - Phenytoin
  - Carbamazepine

Pellagra Diagnosis & Treatment

- Clinical diagnosis
- Serum/whole blood niacin
  - Varies based on recent intake
  - Does not assess whole body stores
- Skin biopsy
  - Variable histologic findings
  - May come back as “psoriasiform and spongiotic dermatitis”
  - Hallmark feature of epidermal pallor is uncommon
- Oral nicotinamide
- Check for other nutritional deficiencies

Thank you!

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