

# CSI: DERMATOLOGY

CLINICAL SCENARIO INVESTIGATION.

CONNECTICUT ACADEMY OF FAMILY PHYSICIANS  
SCIENTIFIC SYMPOSIUM  
OCTOBER 21, 2015

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# Disclosures

- ▣ AbbVie - Speaker

# Talk Structure

- ▣ Case-based scenarios, using look-alike photos, comparing the dermatologic manifestations of systemic disease to dermatologic disease.
- ▣ Select the clinical photo that best matches the clinical vignette.
- ▣ Review the skin findings that help differentiate the two cases.
- ▣ Review etiology/pathogenesis when understood and discuss treatments.

# Case 1: Scaly Serpiginous Eruption

This patient was evaluated for a progressively worsening pruritic rash associated with dyspnea on exertion and 5-kg weight loss. Despite its dramatic appearance, the patient reported no itch. KOH examination is negative (But, who's good at those anyway?)

A.



B.



# Case 1: Scaly Serpiginous Eruption

This patient was evaluated for a progressively worsening pruritic rash associated with dyspnea on exertion and 5-kg weight loss. Despite its dramatic appearance, the patient reported no itch. KOH examination is negative (But, who's good at those anyway?)

**A. Correct.**

Erythema Gyrratum Repens



B. Tinea Corporis

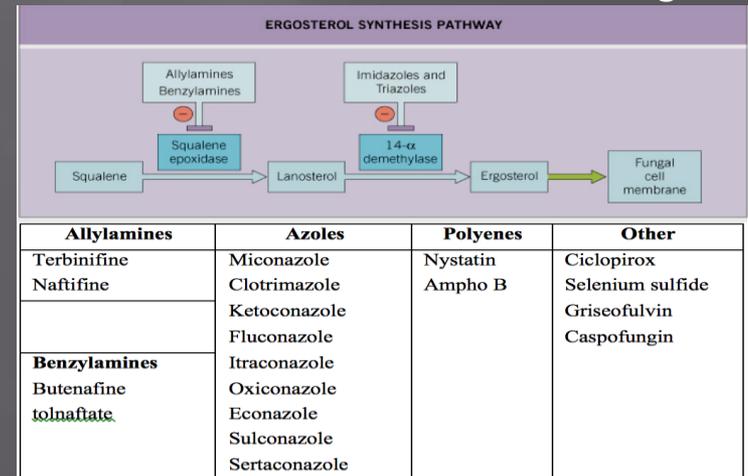


# Erythema Gydatum Repens

- ▣ Rare paraneoplastic phenomenon typically associated with lung cancer>esophageal and breast cancers.
- ▣ Less commonly associated with connective tissue disorders such as Lupus or Rheumatoid Arthritis
- ▣ “Figurate erythema” migrates up to 1 cm a day
- ▣ Resolves with treatment of the malignancy
- ▣ This patient was diagnosed with squamous cell carcinoma of the lung.

# Tinea corporis

- ▣ *T. rubrum* > *T. mentagrophytes* > *M. canis*
- ▣ Risk factors
  - Close contact, previous infection, occupational/recreational exposure, contaminated furniture or clothing, gymnasium, locker rooms
- ▣ 1-3 week incubation → centrifugal spread from point of invasion with central clearing



## Case 2: Purpuric Eruption on the Legs & Buttocks

A 12-year old boy presents with a recent history of upper respiratory tract infection, fever and malaise. One week later he develops purpuric papules, plaques and hemorrhagic vesicles on the shins that progress to the umbilicus. On ROS he has intense colicky abdominal pain and arthralgias of the knees.

A.



B.



## Case 2: Purpuric Eruption on the Legs and Buttocks

A. Pityriasis Lichenoides et Varioliformis  
Acuta



**B. Correct.**  
Henoch-Shonlein Purpura



## Pityriasis Lichenoides et Varioiformis Acuta

- ▣ “PLEVA”
- ▣ Etiology: inflammatory disorder secondary to infection vs. lymphoproliferative disorder vs. immune complex-mediated reaction
- ▣ Avg age 6.5 years
- ▣ Slight male predominance
- ▣ Infectious organisms: varicella, viral gastroenteritis, EBV, otitis media, pneumonia
- ▣ Medications: antibiotics, acetaminophen, TNF-inhibitors, OCPs
- ▣ Vaccinations: MMR, Influenza and HepB
- ▣ Typically a pediatric condition but all ages can be affected
- ▣ CD8+ infiltrate (PLC is CD4+) and can exhibit clonality (13%)
- ▣ Lesions range in morphology
- ▣ Typically asymptomatic self-resolving
- ▣ Oral erythromycin 30-50 mg/kg/day for 1-3 months
- ▣ More fulminant cases can require systemic steroids or MTX

## Henoch-Schonlein Purpura

- ▣ Vasculitis with IgA immunodeposition
- ▣ Most commonly in children <10
- ▣ Usually presents 1-2 weeks after an upper respiratory tract infection
- ▣ Annual incidence rates range 3-26/100,000
- ▣ Can be associated with underlying malignancy if seen in adults
- ▣ May involve GI (edema & lesions above the waist show greater risk), kidney and joints
- ▣ 1-3% progress to ESRD
  - Increased incidence incl. greater age, scrotal swelling, persistent purpura, severe abdominal pains, incr. IgA levels
- ▣ Dapsone and colchicine can be used but typically self-limited
- ▣ Systemic corticosteroids to help abdominal pain or arthritis (not renal disease)
- ▣ Monitor urinalysis for 3-6 months (hematuria, proteinuria)

### Case 3: Unusual “Acne”

A female patient presents for an urgent care visit for the abrupt onset of fever, arthralgias and a tender facial rash. She denies any exacerbating factors such as exposure to sun. She has a history of Crohn’s Disease on infliximab.

A.



B.



### Case 3: Unusual “Acne”

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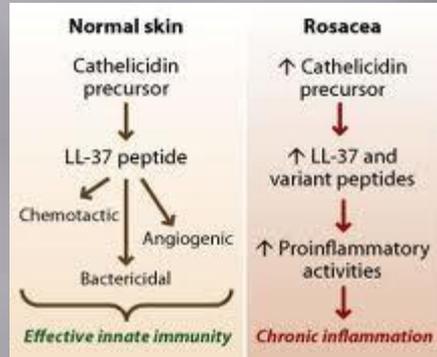
**B. Correct**  
Sweet’s Syndrome

A. Pustular Rosacea



# Rosacea

- Heterogeneous group of condition culminating in centrofacial redness
- Vascular hyper-reactivity → repeated episodes of vasodilation → leakage of plasma and inflammation



- Infection-associated
  - *H. pylori*, *Demodex follicularum*, *B. oleroneus*, *P. acnes*
- Triggers
  - Heat, Hot drinks, Vasodilators, UV-light, histamine-containing foods (esp. alcohol), Spices
- Elevated levels of kallikrein-kinin system
- Treatment = topical vitamin-a (tretinoin), topical metronidazole, topical sulfur, topical/oral ivermectin, Mirvaso® (topical brimonidine gel)
- Nutritional treatment = remove histamine containing foods, probiotics/prebiotics ↓ kallikrein-kinin activation

## “Sweet’s Syndrome”

### Acute Febrile Neutrophilic Dermatositis

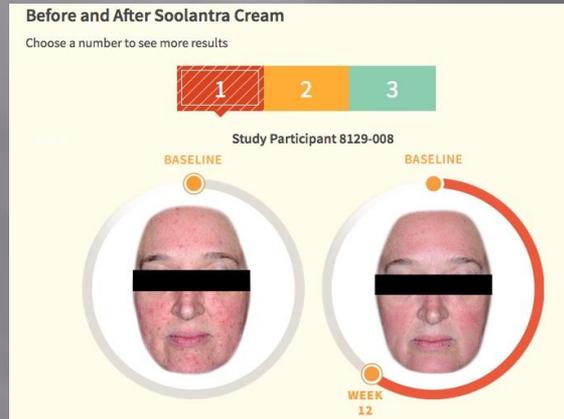
- Affects patients 30-60 years: W>M
- Malignancy-associated in 20%
  - **Acute Myelogenous Leukemia** >GU/breast/colon
- Drugs
  - G-CSF, GM-CSF, lasix, hydralazine, minocycline, bactrim
- Infection-related
  - Strep, URI, GI infection
- Inflammatory Bowel Disease
- Pregnancy
- Patients look and feel ill
  - Fever and leukocytosis, arthralgias, myalgias, ocular findings (episcleritis, conjunctivitis, limbal nodules)
- Treatment = **oral steroids** x 4-6 weeks is best (alternatives = SSKI, dapsone, colchicine)
  - Treat underlying infection, malignancy, etc.



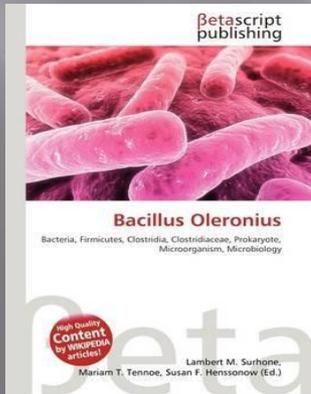
Actual results with MIRVASO from 4-week clinical studies. Individual results may vary.

## What's new in **ROSACEA**

- Mirvaso® (brimonidine gel 0.33%)
  - $\alpha$ -2 agonist  $\rightarrow$  vasoconstriction
  - Applied daily to reduce erythema



- Soolantra™ (ivermectin 1% cream)
  - GABA agonist  $\rightarrow$  chloride channel activation  $\rightarrow$  demodex death



## Case 4. Retiform Eruption on the Rump

A 45 year-old patient with a history of alcoholism, recent low back injury and dog bite presents with fever, malaise, confusion, hypotension and a net-like eruption on the back. Blood cultures are drawn and the patient is admitted to the ICU for stabilization.

A.



B.



## Case 4. Retiform Eruption on the Rump

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A. Erythema ab igne due to heating pad



**B. Correct**

Retiform purpura secondary to  
*Capnocytophaga canimoris*



# Erythema ab igne

- ▣ Heat trauma
  - Due to repeated or prolonged heat exposure to the skin
  - Vasodilation → RBC extravasation → hemosiderin deposition and degradation of elastic fibers
  - Eruption may fade with time

# Retiform Purpura

- ▣ Microvascular occlusion disorders
  - Disorders of platelet plugging
  - Disorders of cryogelling or cryoagglutination
  - Occlusion by opportunistic organisms
  - Disorders of occlusion by emboli
  - Systemic coagulopathies
  - Vascular coagulopathies

**Livedo reticularis**

Tight net-like pattern  
without any breaks

Symmetrical

Indicative of generalized  
impairment of blood  
flow (e.g., cutis marmorata)

Varies with temperature  
changes

LR: Livedo reticularis

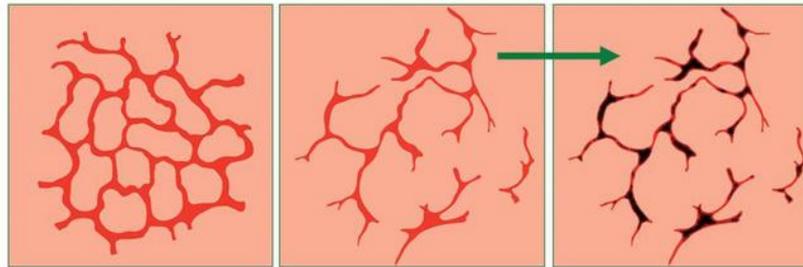
**Livedo racemosa**

Breaks in the net-like  
pattern, resulting in larger  
irregular branching lesions

Asymmetrical

Indicative of localized  
impairment of blood flow  
(e.g., vasculitis)

Does not vary appreciably  
with temperature changes



*Livedo reticularis*  
(funcional)

*Livedo racemosa*  
(orgánica)

**Púrpura retiforme**



# Microvascular occlusion disorders

- Disorders of platelet plugging
  - **Heparin necrosis** (ab to PF4; 5-10d after IV/SQ heparin), **paroxysmal nocturnal hemoglobinuria** (PIG-gene defect; membrane protein protecting RBC from complement injury, **thrombotic thrombocytopenia purpura** (acquired Ab to ADAMTS13 MMP; inherited reduced activity of ADAMTS13→VWF multimers; non-ADAMTS13 assoc.), **hemolytic uremic syndrome** (shiga-toxin from *E. coli* 0157:H7>*E. coli*>*shigella dysenteriae*)
- Disorders of cryogelling or cryoagglutination
  - **Cyroglobulinemia, cryofibrinogenemia** (fibrinogen, fibrin, fibronectin detected only in plasma that gel in the cold), **cold agglutinins** (antibodies that promote the agglutination of RBCs on cold exposure assoc. with mycoplasma)
- Occlusion by opportunistic organisms
  - Organisms grow in the vessel wall typically in immunocompromised patients (*pseudomonas aeruginosa*, *aspergillus*, *C. albicans*, *Mucor*, *Aspergillus fumigatus*, *Fusarium*, *Scytalidium dimidiatum*)
- Disorders of occlusion by emboli
  - **Cholesterol emboli** (fragmentation of ulcerated atherosclerotic plaques; eosinophilia ); **oxalate emboli** (primary, secondary from B6 def.); **myxomas, infective or marantic endocarditis**
- Vascular coagulopathies
  - **Antiphospholipid antibody syndrome/Lupus Anticoagulant Syndrome** (Ab to platelet phospholipid/neoantigen coexpression requiring co-factor such as  $\beta_2$ -**glycoprotein 1** most common; also prothrombin, annexin V, components of the thrombomodulin-protein C system→thrombosis as a result of interference of prostacyclin release)

# Microvascular occlusion disorders

## ▣ Systemic Coagulopathies

### ▪ Protein C and S disorders

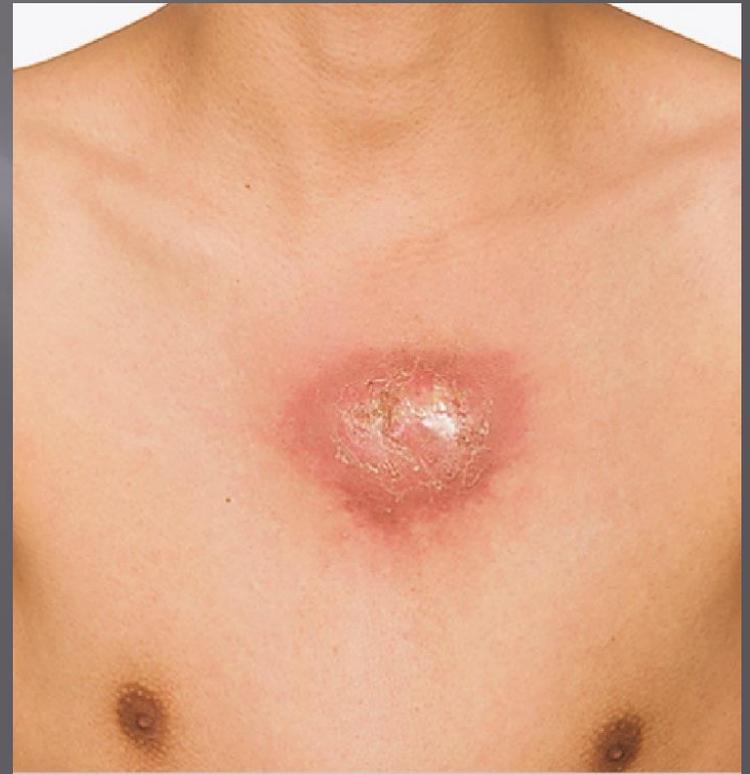
- ▣ **Neonatal purpura fulminans** (Homozygous or compound heterozygous deficiency or dysfunction of either protein C or S; Death unless treated with protein C and lifelong coumadin)
- ▣ **Warfarin (Coumadin) necrosis** (Onset = **2-5 days of starting treatment due to ↓ protein C**; Affected sites = fatty areas (breast, buttocks, thighs, hips); Trmt = D/C warfarin, give vitamin K, begin heparin, consider protein C concentrate (drotrecogin alfa = Xigris)
- ▣ **Purpura fulminans with sepsis**
  - Severe rapidly fatal reaction associated with infection and DIC
  - Transient acquired protein C deficiency
  - Meningococcal infection most common (also *S. aureus*, groups A & B β-hemolytic streptococci, *S. pneumoniae*, *Haemophilus influenzae*, *Haemophilus aegyptius*, *Capnocytophaga canimoris*)
- ▣ **Purpura fulminans post-infection**
  - Occurs in children after infection with group A streptococci or varicella zoster
  - Antibodies against protein S (no protein C or S deficiency)

## Case 5: Fungating Chest Growth

The patient below presented to the ED with a recent history of hemoptysis, fever and weight loss. The patient had been on international leave to Ecuador for the past 6 years prior to presenting. The patient is unsure of the exact time his chest lesion erupted. He hasn't been paying much attention. A recent ppd was +.

B.

A.



## Case 5: Fungating Chest Growth

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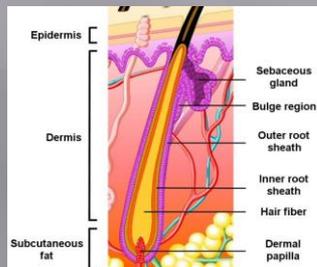
**B. Correct**  
Scrofuloderma

A. Basal Cell Carcinoma, Neglected

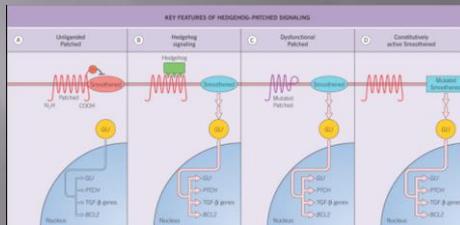


# Basal Cell Carcinoma

- Risk factors
  - Intermittent recreational sun exposure > cumulative sun exposure; tanning beds (OR 1.5); ionizing radiation (OR 3.6); immunosuppression (5-10 x risk); oral glucocorticoids (OR 1.5)
- Only occur in pilosebaceous areas
  - Regions with high number of progenitor cells (bulge region of hair follicle)



- Gene defects = *PTCH* (66%) > *p53* (50%) > *SMO* (20%) > *CDKN2A* (small %)



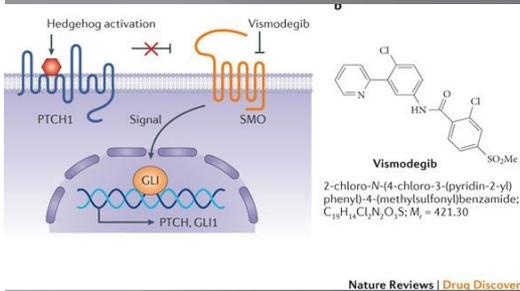
- No known precursors
- Have capacity for infinite growth
- Locally invasive (express matrix metalloproteinases, collagenases)
- Rarely metastasize (depend on stroma produced by local fibroblasts for survival)
  - If metastasis, from perineural spread → LN → lung & bone

# Scrofuloderma

- Scrofuloderma
- Direct extension of underlying TB infection (pulmonary, lymph nodes, bones, epididymis) to skin. Cervical lymphadenitis most common source



- Firm, deep-seated SQ nodule (cold abscess) that drains with secondary ulceration and sinus tracts
- Borders of ulcer usually blue and margins usually undermined
- Heals with characteristic cord-like scars
- PPD (+)
- 4 categories of cutaneous TB
  - Inoculation from exogenous source = TB chancre (2-4wks after direct inoculation in naïve pt, PPD-), TB verrucosa cutis (direct inoculation in previously infected pt, PPD+)
  - Scrofuloderma (direct extension from underlying infection: bones, lungs, lymph nodes, PPD+)
  - TB cutis oroficialis (direct inoculation from skin to mouth, PPD+)
  - Hematogenous spread = lupus vulgaris, acute military TB, TB ulcer/gumma/abscess, TB cellulitis
  - Tuberculids = erythema induratum (Bazin disease)

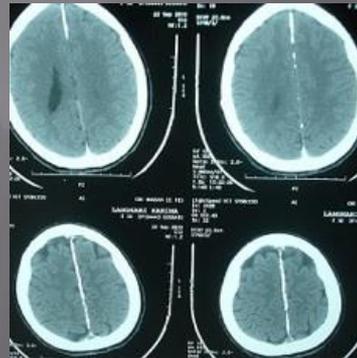


## What's new in BCC treatment?

- **Erivedge™ (vismodegib)**
  - Used for clinically inoperable BCC, metastatic BCC, Basal Cell Nevus Syndrome
  - Inhibits smoothed
  - 150mg daily until clinical resolution

- **Basal Cell Nevus Syndrome**

- (Gorlin Syndrome)
- AD condition
- Defect in Patched 1 = tumor suppressor
- BCC, palmoplantar pits, milium, epidermoid and odontogenic cysts
- frontal bossing, hypertelorism, bifid ribs, calcification of the falx cerebri, agenesis of the corpus callosum, risk of medulloblastoma, fibrosarcoma, ovarian fibromas, degree of MR



## Case 6: Itchy Vesicular Rash

A 60 year-old female patient with a history of HTN and hypercholesterolemia presents with a 10 day history of widespread urticarial plaques that become focally vesicular. She notices 2 new “canker sores” in her mouth. The patient has a hobby of gardening and spent the past week weeding. Topical calamine has produced little to no benefit. Her primary care physician recently started her on furosemide 40mg bid for improvement in her BP.

A.



B.



## Case 6: Itchy Vesicular Rash

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**A. Correct**

Bullous Pemphigoid

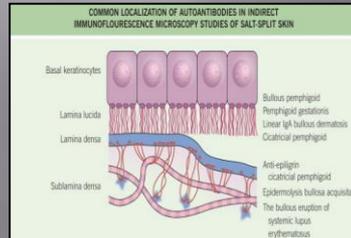
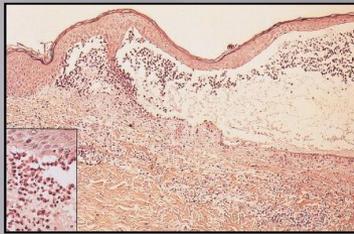


**B. Allergic Contact Dermatitis-  
Urushiol**



# Bullous Pemphigoid

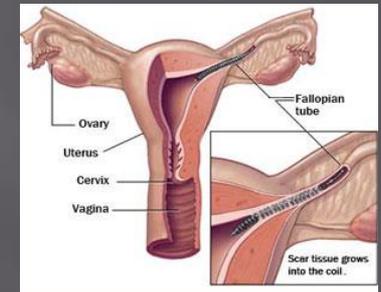
- Autoimmune blistering disorder characterized by circulating autoantibodies to epidermal hemidesmosomal proteins
  - Transmembrane BPAg2/Type XVII collagen (BP180)
  - Cytoplasmic BPAg1 (BP 230)
    - IgG antibody binding → complement activation → eosinophil and neutrophil recruitment → release of MMP-9 and neutrophil elastase → blister



- **Drug-induced:**
  - Diuretics (lasix, HCTZ, bumetanide)
  - Antibiotics (sulfa, amoxicillin, cipro)
  - Thiol-containing drugs (captopril, enalapril, penicillamine, goldthiosulfate)
  - NSAIDS
  - Beta-blockers
- Non-bullous phase (very common): can send an IIF for BP-180 in clinically suspicious, urticarial, elderly patients
- Dx: punch biopsy blister edge and 2-3 mm perilesionally
- Trmt = steroids (systemic & topical), azathioprine, MTX, cellcept, cyclosporine, nicotinamide, tetracycline, dapsone (oral)
- **Associated Conditions:**
  - Parkinson's, Dementia
  - Autoimmune disease (RA, Hashimoto's, Diabetes, SLE, MS)

# Allergic Contact Dermatitis

- Type IV delayed-type hypersensitivity reaction
- Allergen binds to skin protein → CD4+ T-cells
- "Spreading" skin foci with increased concentration of allergen erupt first → less potent concentrations
- Trmt = Topical or oral steroids
  - 3-week taper prevents rebound contact
- **Contact Allergen of the Year 2015**
  - Formaldehyde
- **Contact Allergen of the Year 2014**
  - Oxybenzone-strong UVB blocking sunscreen
- **Contact Allergen of the Year 2013**
  - Methylchloroisothiazolinone
  - Eucerin®, Tide®, babywipes
- **Nickel**
  - metal frequently encountered in jewelry, toys, clasps or buttons on clothing
  - Foods (oatmeal, cereals, legumes, canned goods, metal pots and pans);
  - Essure® implantable contraceptive device



- **Benzocaine**
  - Topical anesthetic (Vagisil™); cross-reacts with paba, paraphenylenediamine (black hair dye), sulfonamides, sulfonyleureas,

## Case 7: Pigmented growth in the sclera

Which of the patients below needs an immediate referral to Ophthalmologic Oncology for biopsy and management of this pigmented conjunctival growth?

A.



B.



## Case 7: Pigmented growth in the sclera

Which of the patients below needs an immediate referral to Ophthalmologic Oncology for biopsy and management of this pigmented conjunctival growth?

**A. Correct**

Conjunctival Melanoma



B. Nevus of Ota



# Conjunctival melanoma

- painless brown spot
- appears in mid-life
- Precursor is primary acquired melanosis “PAM”
  - defined as pigmentation of the conjunctival epithelium with or without benign melanocytic hyperplasia
- Often misdiagnosed as a freckle and not a premalignant condition
- Degree of PAM atypia important in transformation
  - No-mild atypia shows 0% progression to melanoma
  - Severe atypia shows 13% progression
  - The greater extent of PAM in clock hours → greater risk of transformation
- Light skinned > dark skinned patients
- High local recurrence
- Can metastasize to lymph nodes/organs
- “no-touch” excisional biopsy with 4mm margins, cryotherapy, alcohol ephthectomy and sclerectomy

# Nevus of Ota

- Due to increased melanocytes in upper dermis
- More common in Asians/Blacks
- 60% present at birth or < age 1; 40% occur at puberty
- Clinical features
  - Unilateral, favors V1 & V2 distribution
    - 2/3 of patients have involvement of ipsilateral sclera
    - Vision usually normal
  - Fluctuations in the intensity of color seen with menstruation, puberty, menopause
  - Ipsilateral sensorineural hypoacusia
  - Associations
    - Glaucoma in 10%
    - Neuromelanosis (rare)
    - Melanoma (rare); choroid = most common location
- Trmt = Q-switched ruby, alexandrite and Ng-YAG lasers
  - Ophthalmic exams for glaucoma, ocular melanoma



## Case 8: Streaky limb

A 23 year-old patient presents to the ED for the appearance of unusual red streaks on the extremity. The patient reports injuring himself in a lacrosse game a day before. The patient is afebrile, but his digits are blistered and tender.

A.



B.



## Case 8: Streaky limb

A 23 year-old patient presents to the ED for the appearance of unusual red streaks on the extremity. The patient reports injuring himself in a lacrosse game a day before. The patient is afebrile, but his digits are blistered and tender.

**A. Correct.**

Acute Lymphangitis



B. Phytophoto Dermatitis



## Acute Lymphangitis

- “Sporotrichoid” lymphocutaneous infection
- Pneumonic: SLANT
  - Staphylococcus aureus, Streptococcus pyogenes (rare)
  - Sporothrix schenckii
  - Leishmaniasis
  - Leprosy
  - Atypical Mycobacteria
    - M. chelonae
    - M. abscessus
    - M. fortuitum
      - Rapidly-growing
      - “Nail salon furunculosis”
  - Nocardia
  - Tularemia
  - (Others)
    - Histoplasmosis
    - Cryptococcus
    - Blastomycosis

## Phytophoto Dermatitis “Margarita Dermatitis”



- UVA + topical or oral photosensitizer + oxygen → reactive oxygen species → damage epidermal, dermal, and endothelial cells → resolves with hyperpigmentation
  - Furocoumarins = photosensitizers
    - **Psoralens & angelicans** most common furocoumarins
    - Apiaceae (celery, parsley, parsnip)
    - Rutaceae (persian lime, key lime)
  - Hyperpigmentation due to many factors
    - Increased melanocyte mitosis and dendrite number
    - Melanocyte hypertrophy
    - Increased tyrosinase activity
    - Change in size and distribution of melanosomes
- Clinical features = painful, non-pruritic, bizarre configurations of erythema, edema, bullae
  - Maximum sensitivity to UV light occurs ½ - 2 hrs after contact with furocoumarins
  - **Berloque dermatitis** = pendant-like streaks of pigmentation on the neck, face, arms, or trunk after the application of colognes containing 5-MOP
- Trmt = prevention

## CASE 9: Baby Rings

A 2-month old girl presents to the office with her mother for numerous annular plaques with indurated borders. They don't appear to be pruritic. The rest of the examination reveals a slightly irregular heartbeat. They have no pets. The baby has had no sick contacts.

A.



B.



## CASE 9: Baby Rings

A 2-month old girl presents to the office with her mother for numerous annular plaques with indurated borders. They don't appear to be pruritic. The rest of the examination reveals a slightly irregular heartbeat. They have no pets. The baby has had no sick contacts.

A. Granuloma Annulare



B. Correct  
Neonatal Lupus



# Granuloma Annulare

- Non-infectious granuloma
  - Likely DTH reaction to unknown antigen
  - Th1 cells → IFN $\gamma$  & macrophage inhibitory factor → monocyte accumulation → lysosome enzyme release → matrix degradation
- Clinical features
  - Benign & self-limited
  - Asymptomatic, arciform/annular skin colored/pink/violaceous small papules that coalesce into plaques
  - Arms/hands (60%) > legs/feet (20%) > trunk/other; facial lesions rare
  - Variants
- Associations
  - Diabetes (controversial; often chronic & relapsing)
  - Hyperlipidemia (generalized variant)
  - Paraneoplastic (solid organ tumors, Hodgkin disease, non-Hodgkin's lymphoma, granulomatous MF)
  - HIV (often atypical variants)
  - Herpes zoster scars (classic & perforating variants)
  - Autoimmune thyroiditis (localized variant)

# Neonatal Lupus

- Variant of lupus found in infants born to mothers with SLE, RA, MCTD, Sjogren's syndrome
- Due to transplacental passage of Ro-antibody
- 16% of Ro+ mother's have babies with NLE
- Sun-exposed areas: annular lesions, "**raccoon eyes**", mucosal erosions
- Average age of onset 6 weeks; 1/4 babies present at birth
- May establish a previously unknown diagnosis in the mom
- Risks:
  - congenital heart block in 15-30%
    - inflammation and calcification of the AV>SA node
    - usually irreversible
    - majority have 3<sup>rd</sup> degree block; 2/3 require pacemakers
    - 20% mortality
    - **U1-RNP Ab no associated cardiac issues**
- Hepatomegaly; splenomegaly; thrombocytopenia; anemia
- Skin lesions clear by a year
- Work-up: CBC, LFTs, EKG, serologies
- Treatment: supportive +/- pacemaker

## Case 10: Acral Cerebriform Plaques

A 55-year old construction worker presents to his PCP with an unusual skin eruption. The patient has a 30 pack-year smoking history, HTN, hypercholesterolemia and palmoplantar hyperhidrosis. On ROS, he reports a 20 lb. weight loss, dysphagia, and foul-smelling breath.

A.



B.



## Case 10: Acral Cerebriform Plaques

A 55-year old construction worker presents to his PCP with an unusual skin eruption. The patient has a 30 pack-year smoking history, HTN, hypercholesterolemia and palmoplantar hyperhidrosis. On ROS, he reports a 20 lb. weight loss, dysphagia, and foul-smelling breath.

### A. Correct

Malignant Acanthosis  
“tripe palm”



### B. Pitted Keratolysis



## Malignant Acanthosis

- Paraneoplastic entity
- Suggests malignancy of the upper aerodigestive tract



## Pitted Keratolysis

- ***Kytococcus sedentarius*** (formerly *Micrococcus sedentarius*) most common
  - Produces keratin-degrading serine proteases (P1 and P2) destroy the stratum corneum
  - Sulfur-containing compounds create characteristic odor
- Tiny crater-like depressions in the stratum corneum on plantar feet > palms
- No associated erythema/inflammation, but usually sweaty and smelly
- Risk factors = hyperhidrosis, prolonged occlusion, increased skin surface pH
- Path = well-defined erosions in top 2/3 of stratum corneum with bacteria confined to erosions
  - **Stain with Grocott-Gomori methenamine silver stain**
- Trmt = keep area dry; topical erythromycin, clindamycin, or benzoyl peroxide
- Other corynebacterium infections
  - Erythrasma
  - Trichomycosis axillaris

## Case 11: Brown Patch on the Back

A 77 year-old woman had undergone mastectomy and chemotherapy for cancer of the left breast 35 years ago. 11 years later, she had a new primary tumor in the right breast for which she received chemotherapy and radiation to the spine for bony mets. 18-months later she received 5-fluorouracil and developed a pink, eroded plaque on the back. On presentation today she now has a brown patch.

A.



B.



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**A. Correct.**

**Radiation Recall**

**B. Notalgia paresthetica**



## Radiation Recall

- May result from changes in vascularization, impaired epithelial stem cells, or impaired DNA repair after XRT and subsequent chemotherapy.

## Notalgia Paresthetica

- Pruritic, some-what burning and nagging itch localized to one dermatomal region of the back
- It typically presents “just out of reach”
- Patients will result to any number of back scratching items including the door frame or a coat hanger
- Cause = Neuropathy from degenerative cervicothoracic disk disease or direct nerve impingement
- Discoloration due to skin proteins dropping into the dermis = macular amyloid
- Trmt = massage, chiropractic, capsaicin cream



THANK YOU