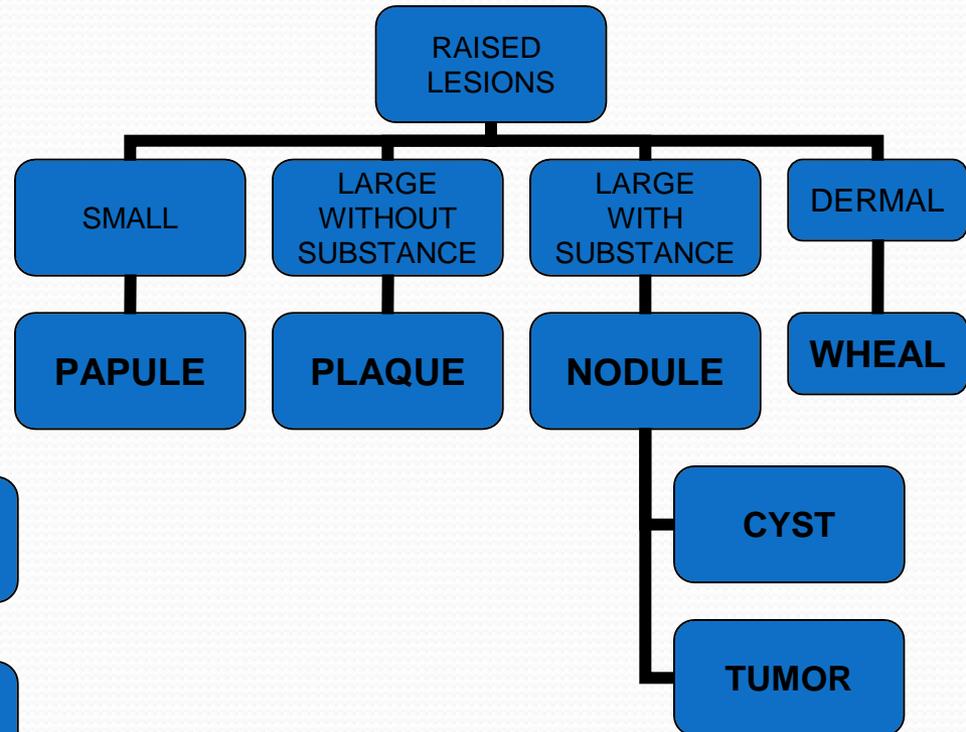
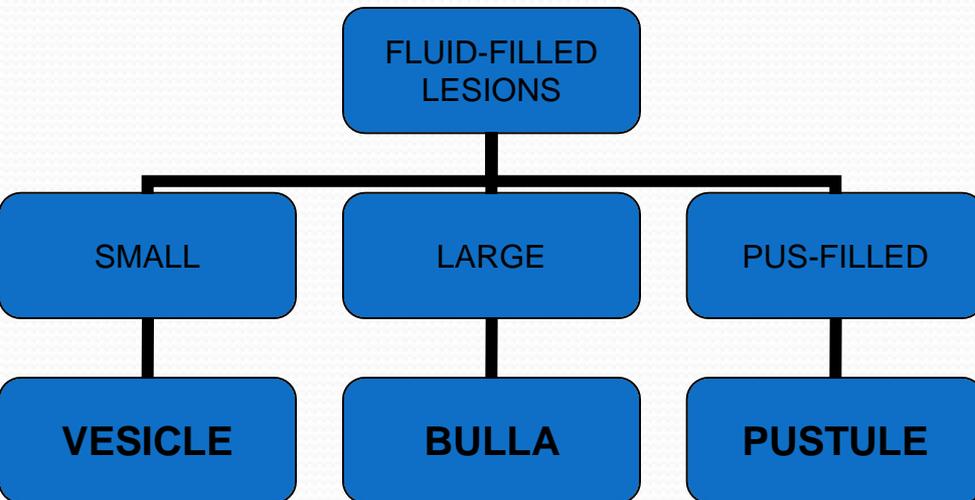
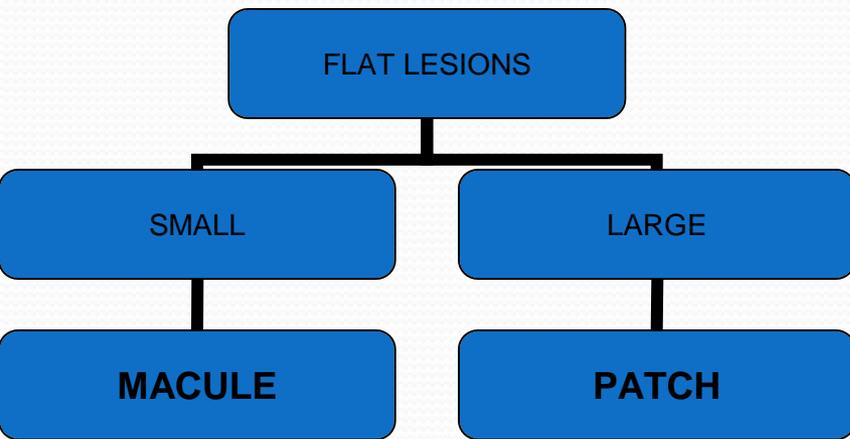


Dermatology 101 Review

Diagnostic Groupings

Review of Primary Lesions



Your description

- Location/Distribution
- Size/Configuration
- Border (Well-margined/Poorly margined)
- Color
- Morphological term
- Secondary Characteristics

- Example
 - On her right flank, there is a 1.5 cm well-margined erythematous plaque with silvery scale.

Steroid potencies

- **VERY POTENT**

- (up to 600 times as potent as hydrocortisone)
 - **Clobetasol propionate (Temovate)**
 - Betamethasone dipropionate (Diprolene)
 - Halobetasol propionate (Ultravate)

- **POTENT**

- (over 100 times more potent than hydrocortisone)
 - **Fluocinonide (Lidex)**
 - Betamethasone valerate (Valisone)
 - Mometasone furoate (Elocon)

- **MODERATE**

- (2-25 times as potent as hydrocortisone)
 - Aclometasone dipropionate (Aclovate)
 - Fluocinolone acetonide (Synalar)
 - **Triamcinolone acetonide (Kenalog-inj and generic-top)**
 - Fluticasone propionate (Cutivate)

- **MILD**

- **Hydrocortisone 0.5-2.5%**

Vehicles

- The vehicle is also an important factor in the strength of your topical steroid
- OINTMENT > CREAM > LOTION
- *Any of the above under occlusion (ex. wet dressing) will make them stronger as well.

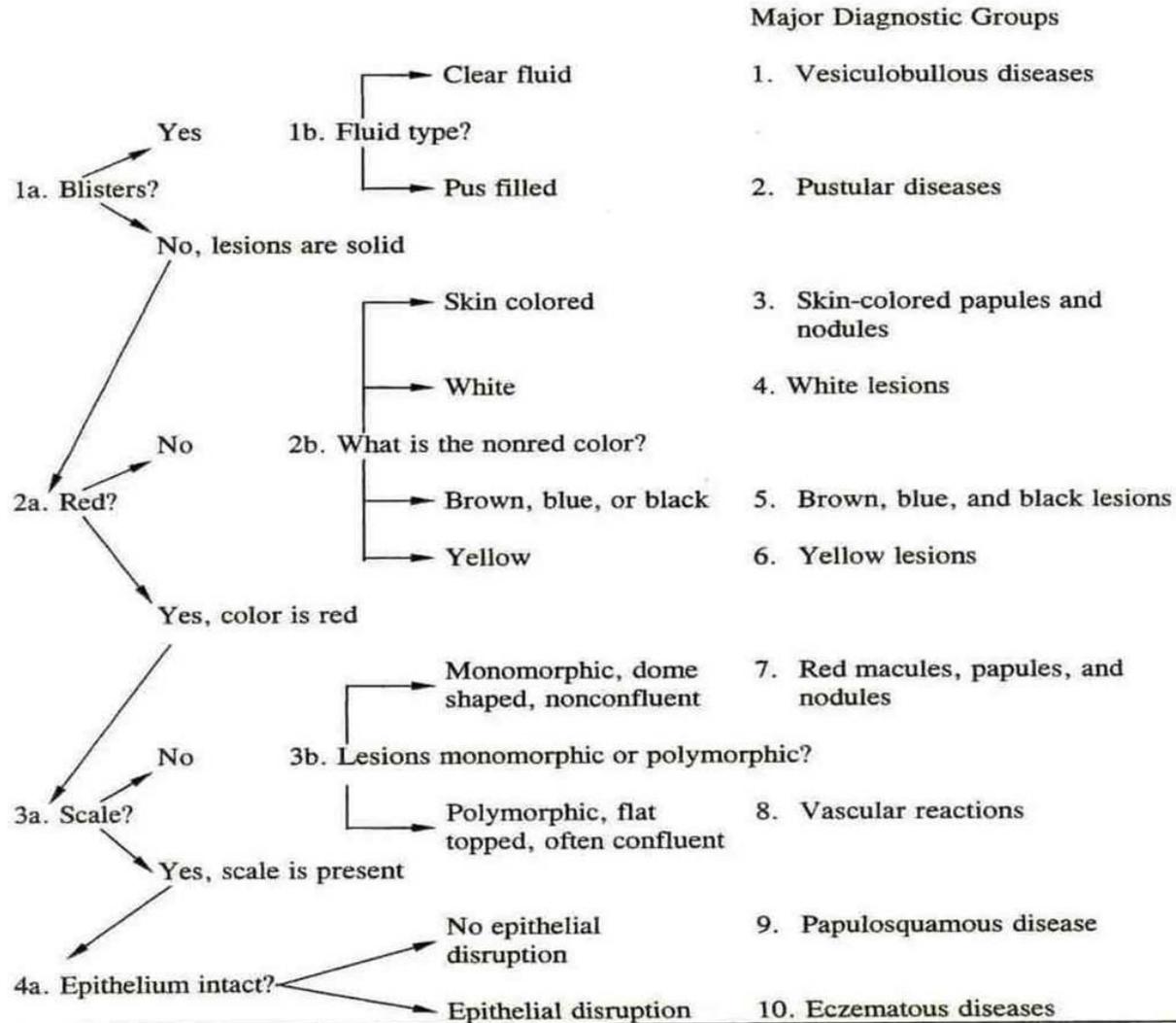
Dermatology 102

Using the Algorithm



To categorize a skin lesion you
need to ask FOUR questions...

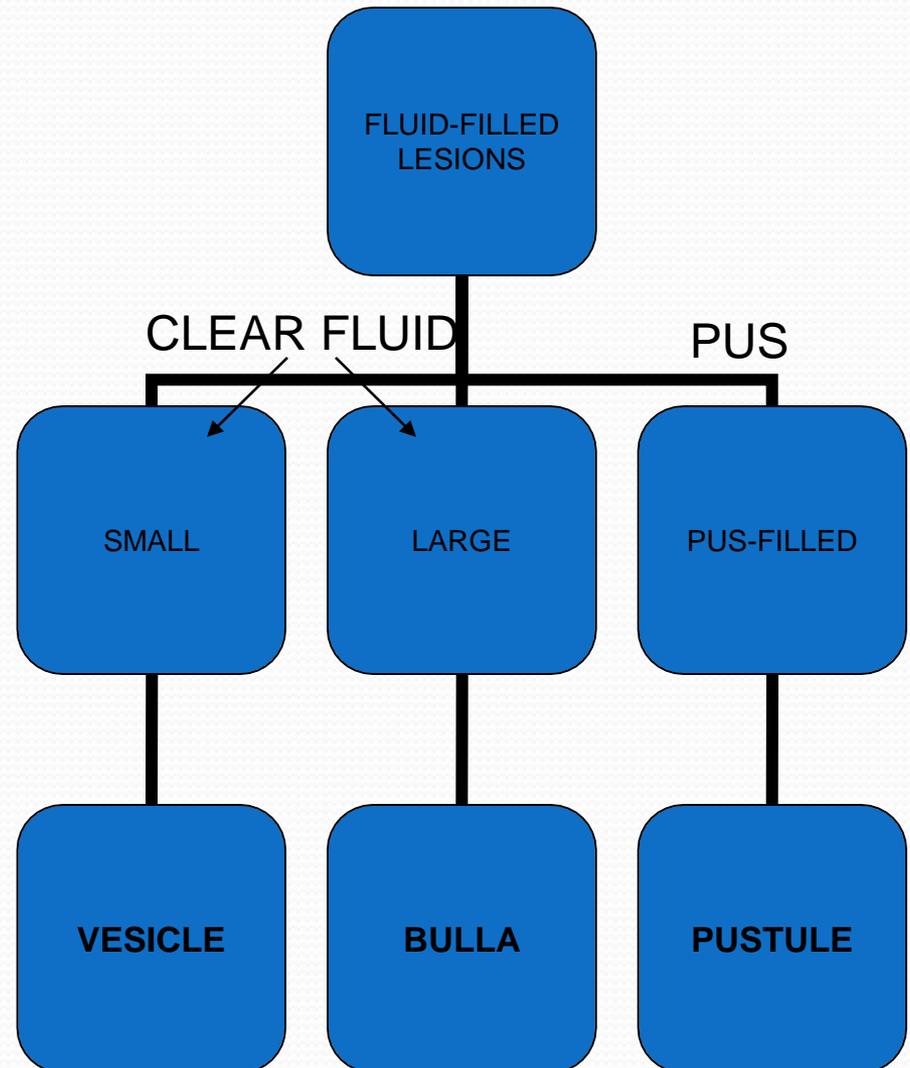
LYNCH ALGORITHM



Question #1:

- **ARE THERE BLISTERS?**

- If YES...
- What type of fluid is within the blister?
 - Clear fluid?
 - Pus?



I. VESICULOBULLOUS DISEASES

Blisters with clear fluid

Small = Vesicle

Large = Bulla

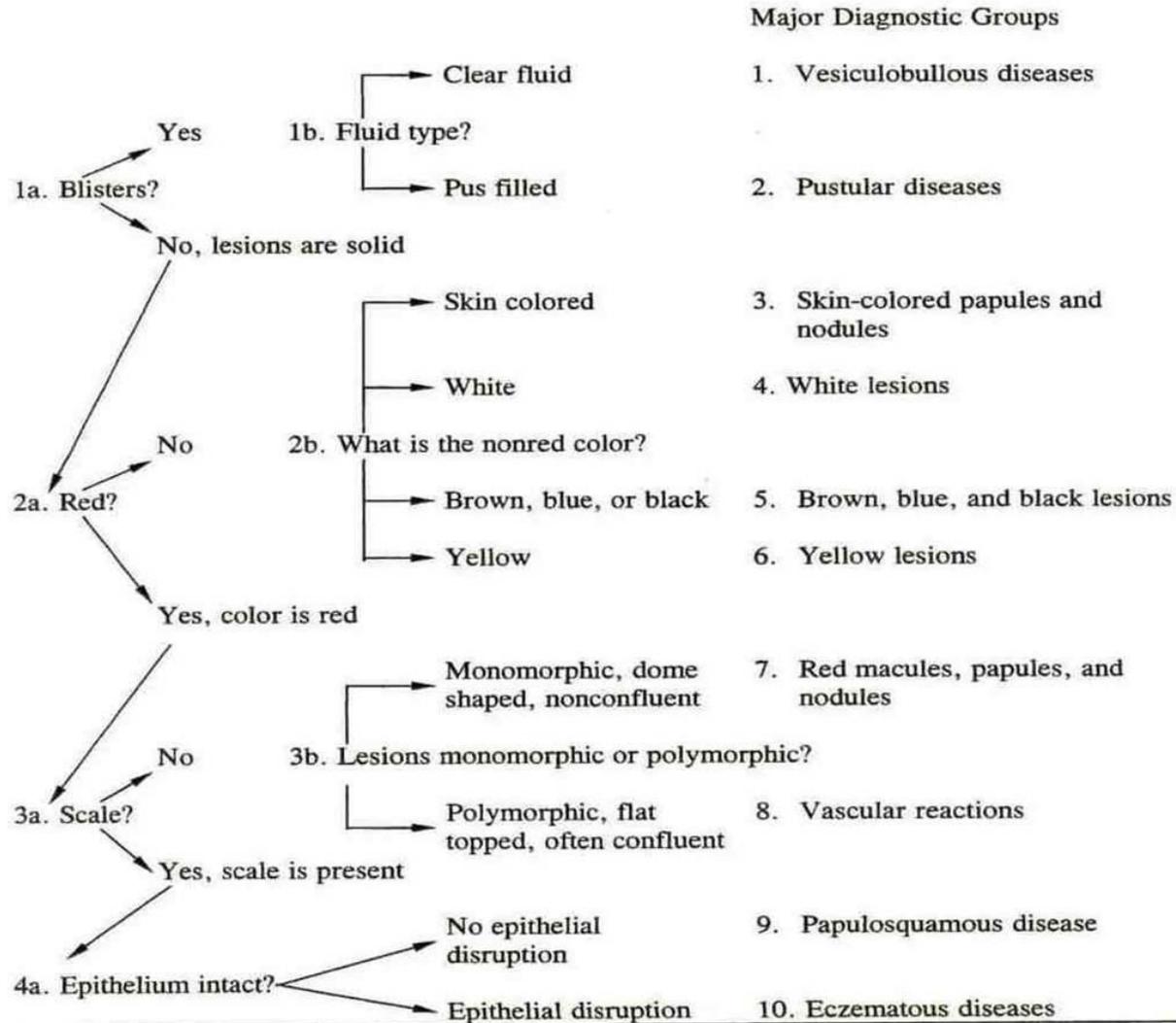


II. PUSTULAR DISEASES

II. Blisters with PUS



LYNCH ALGORITHM



NO, the lesions are solid.

- Question #2a:

ARE THE LESIONS RED?

- If YES, continue with the algorithm
- If NO...

- Question #2b:
- WHAT IS THE COLOR OF THE LESIONS?

THE LESIONS ARE...

SKIN COLORED

III. SKIN COLORED PAPULES AND NODULES



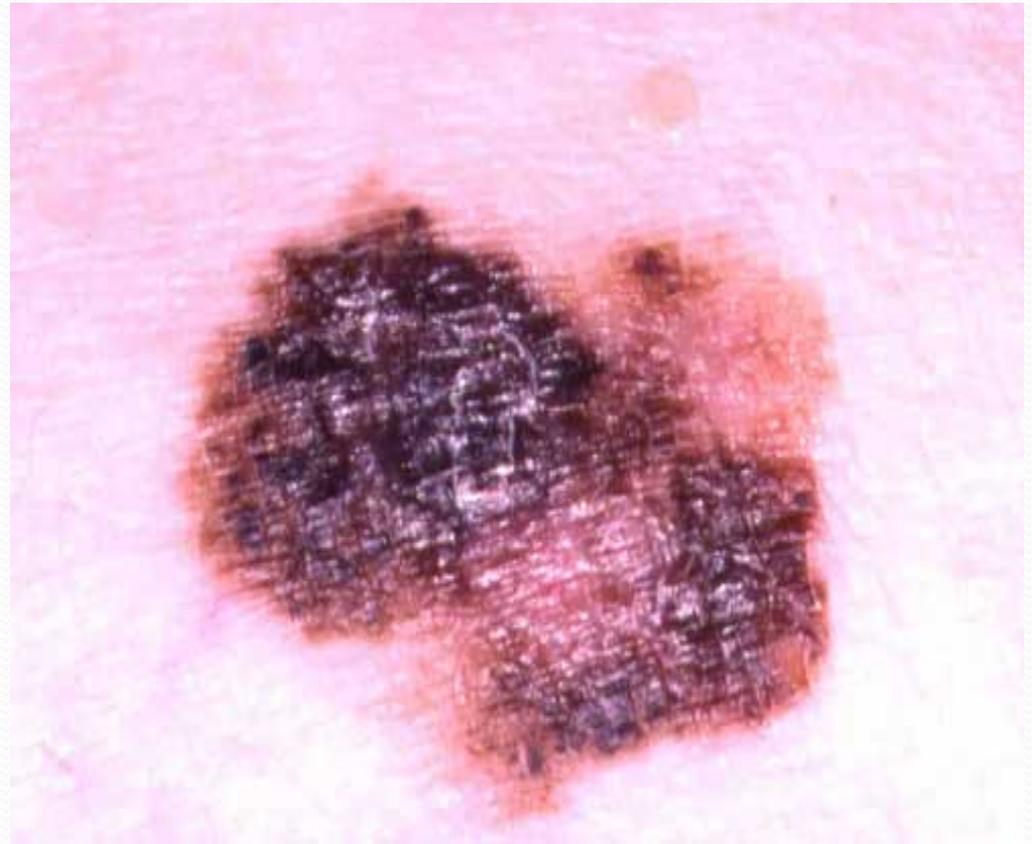
WHITE

IV. WHITE LESIONS



BROWN, BLUE, or BLACK

**V. BROWN,
BLUE OR
BLACK
LESIONS**

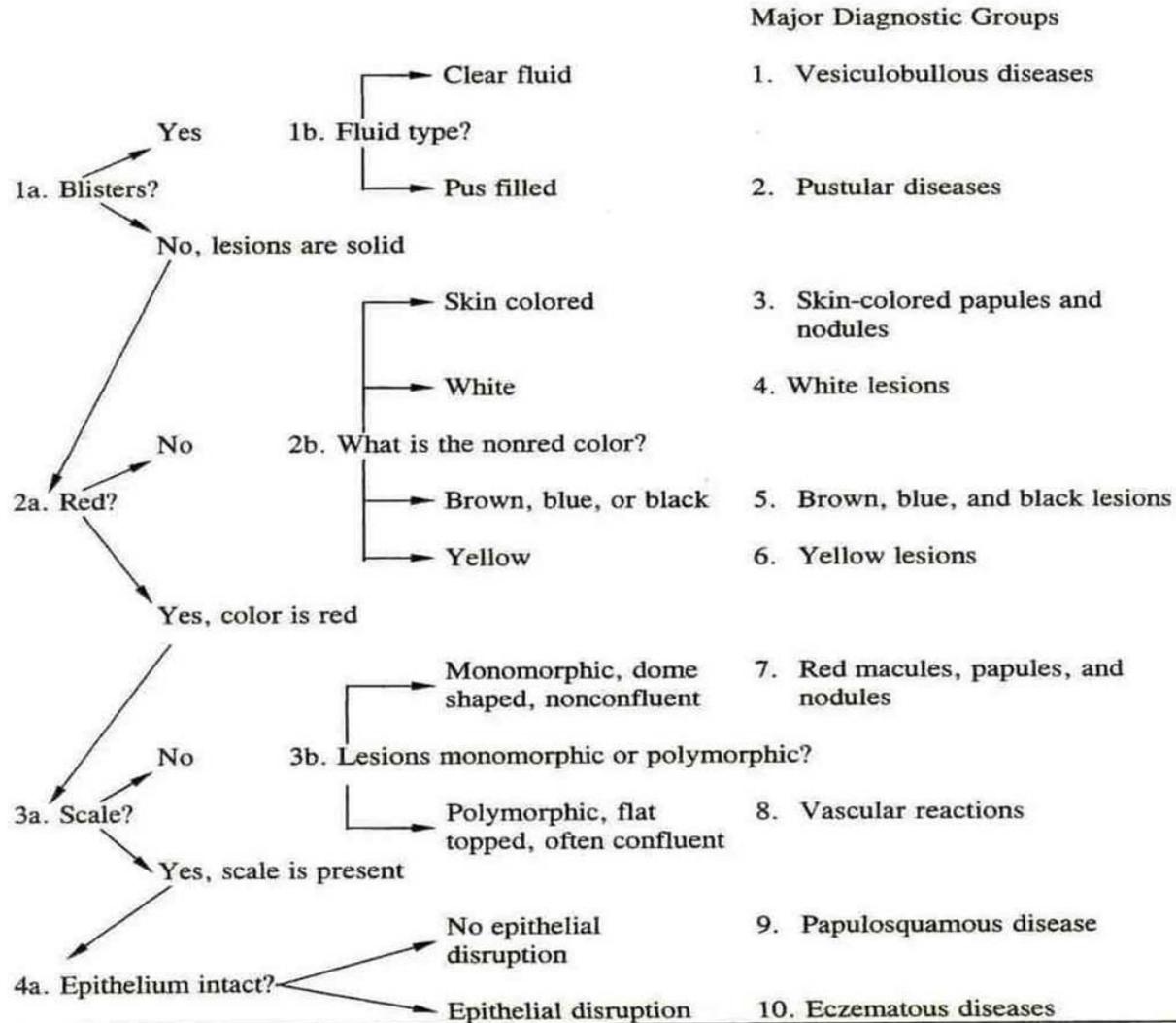


YELLOW

VI. YELLOW LESIONS



LYNCH ALGORITHM



YES, the lesions are SOLID and RED.

- Question #3a

IS THERE SCALE?

- If YES, continue with the algorithm
- If NO...

Question #3b

ARE THE LESIONS DOME-SHAPED OR FLAT-TOPPED?

The lesions are:

- SOLID
 - RED
 - DOME-SHAPED
- (No scale)

VII. RED PAPULES AND NODULES



The lesions are:

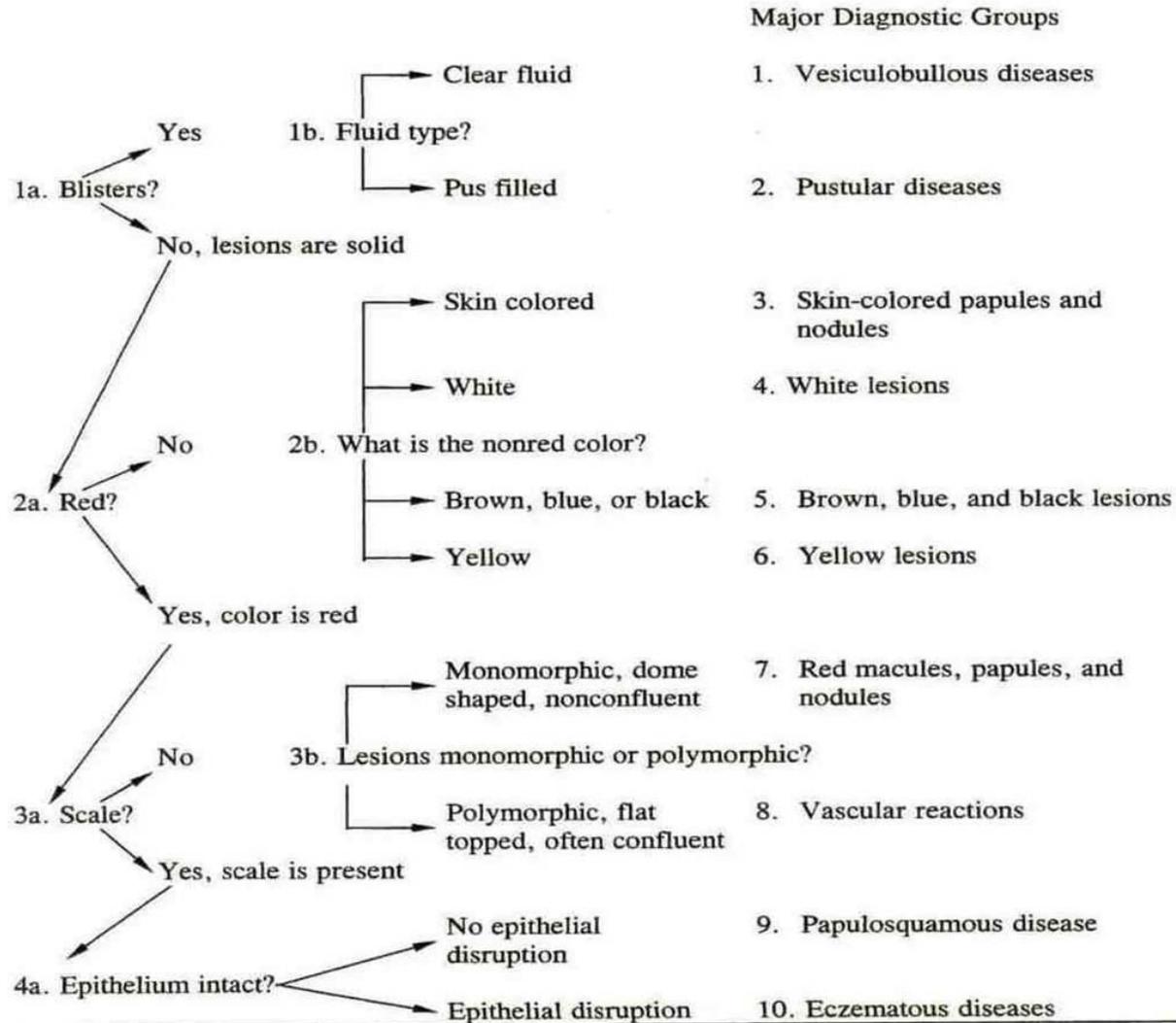
- SOLID
 - RED
 - FLAT-TOPPED
- (No scale)

- **VIII.**
VASCULAR
REACTIONS



The last two categories...

LYNCH ALGORITHM



YES, there is scale.

- The lesions are...
 - SOLID
 - RED and
 - SCALY

• Question 4:

IS THERE EPITHELIAL
DISRUPTION?

or

**ARE THEY WELL-MARGINATED
or POORLY-MARGINATED?**

Well-marginated!

- Red
- Solid
- Scaly
- Well-marginated



IX. PAPULOSQUAMOUS DISEASES

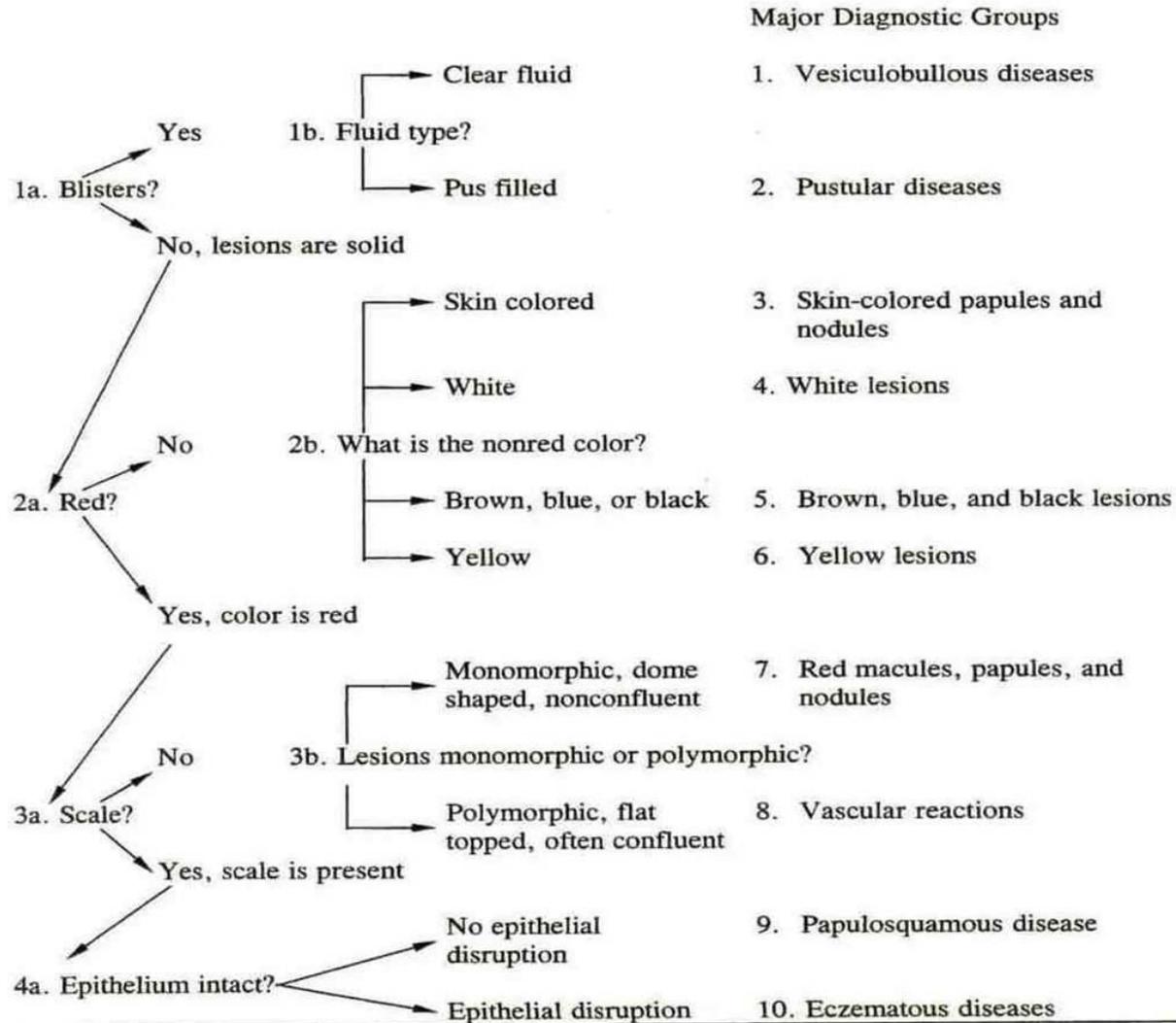
Poorly-marginated...

- Red
- Solid
- Scaly
- Poorly-marginated



X. ECZEMATOUS DISEASES

LYNCH ALGORITHM



You're done...

Now its time to cover some of the diseases...

Dermatology 201

The diseases

Vesiculobullous Diseases

Case 1

- 15 year old woman
- Lesions on cheek which started 1 week ago with a **burning** / itching sensation
- Never had this before
- Some **tender nodes** on head and neck exam



Herpes Simplex

Description:

- On the right cheek, there are grouped vesicles on an erythematous plaque.

Epidemiology:

- Any age
- Transmitted by skin-skin contact
- Mucous membranes or keratinized skin

- How does the clinical presentation differ between a primary and a recurrent infection?
- What are precipitating factors for recurrence?

Case 2

- 65 year old man
- Severe pain and **allodynia** for 2 days and then **subsequently developed a rash**



Herpes Zoster

Description:

- On the right V₁ branch of the trigeminal nerve dermatome, there are grouped vesicles on an erythematous plaque.
- What is the significance of the lesion on the tip of the nose?
- What is the disease called with involvement of the geniculate ganglion?

Epidemiology:

- Who is at risk?

Case 3

- 55 year old woman from **Lebanon**
- A couple months ago, had a couple of erosive lesions in her **mouth** which were tender. They spontaneously resolved. Now has noted lesions on her **back and abdomen** which are painful and blister. The blisters rupture easily and spread with lateral pressure.



Pemphigus Vulgaris

Description:

- Multiple polymorphic 1-3 cm bullae on the lower back that are easily ruptured (also involving the mouth)
- Spread of the blister following application of lateral pressure to an active lesion: **NIKOLSKY's SIGN**

Epidemiology:

- Age 40-60
- Middle Eastern descent

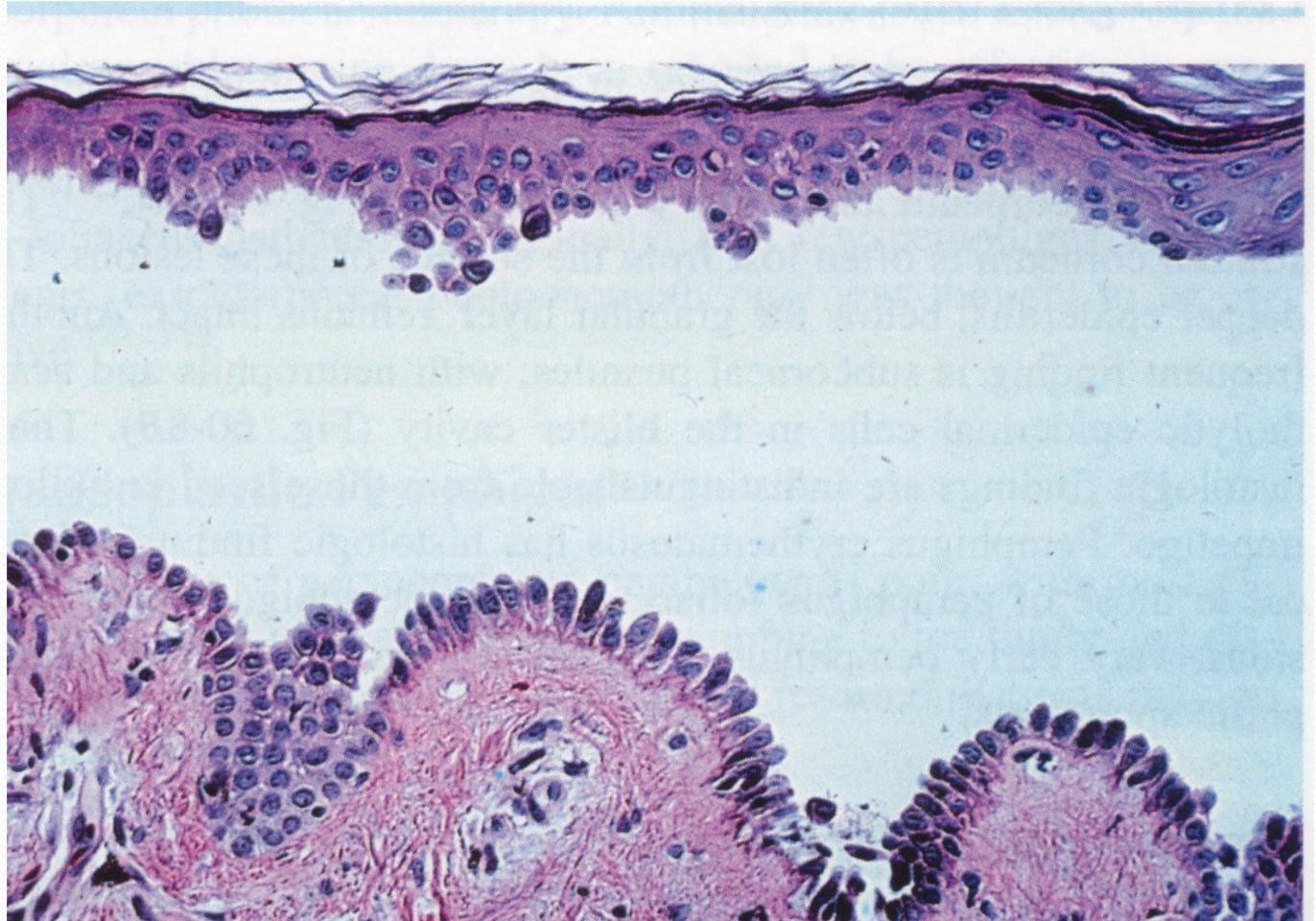
Diagnosis:

- **5 mm punch biopsy x 2!**
 - H and E (edge of the lesion)
 - Immunofluorescence (Michel's media) (perilesional normal skin)



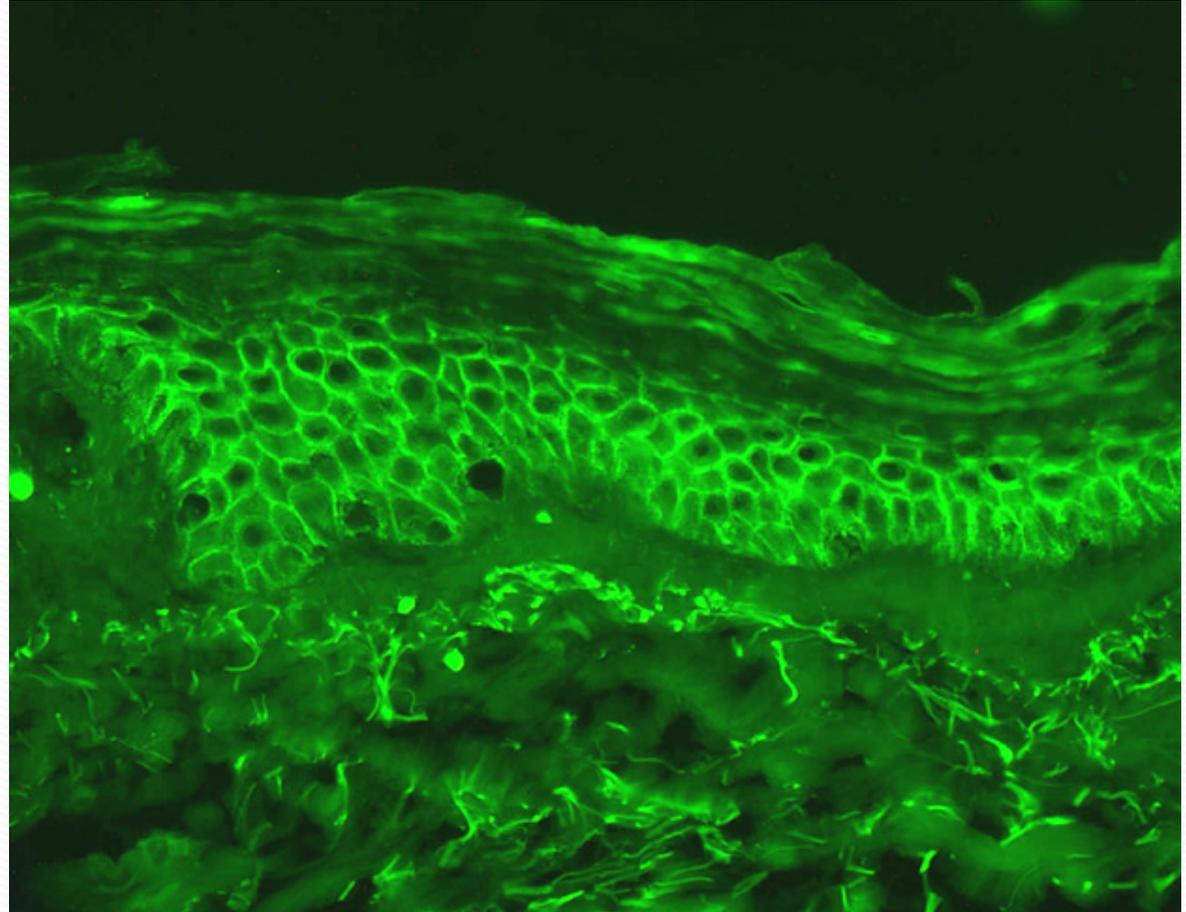
Pemphigus Vulgaris

Punch biopsy with H and E stain shows **acantholysis**: separation of the epidermis occurs **above the basal layer** revealing a “row of tombstones”.



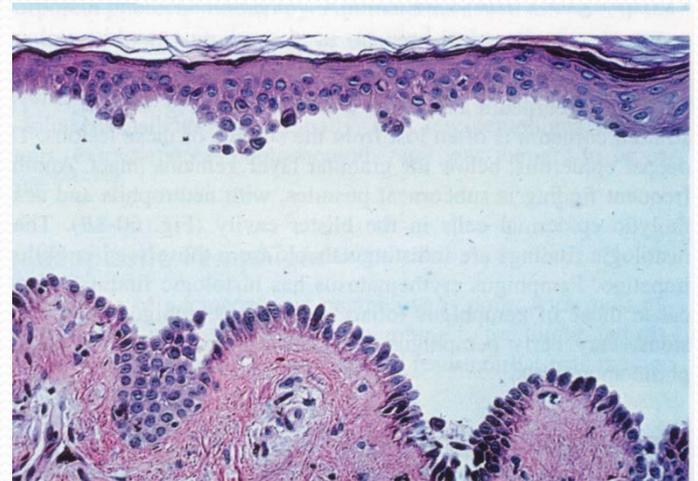
Pemphigus Vulgaris

Direct immunofluorescence reveals **IgG and C₃ stain at the cellular junctions** between the stratified squamous epithelial cells in the epidermis.



Treatment

- Dermatology referral
- High-dose steroids
 - Prednisone 40-120 mg/day to start
 - Up to 200 mg/day
 - Complicated to manage
- Steroid sparing agent
 - Azathioprine or Cyclophosphamide



Case 4

- 45 year old man
- Rash started on his face and then involved the back. Looks flaky and crusted. There is no mucosal involvement on exam.



Pemphigus Foliaceus

Description:

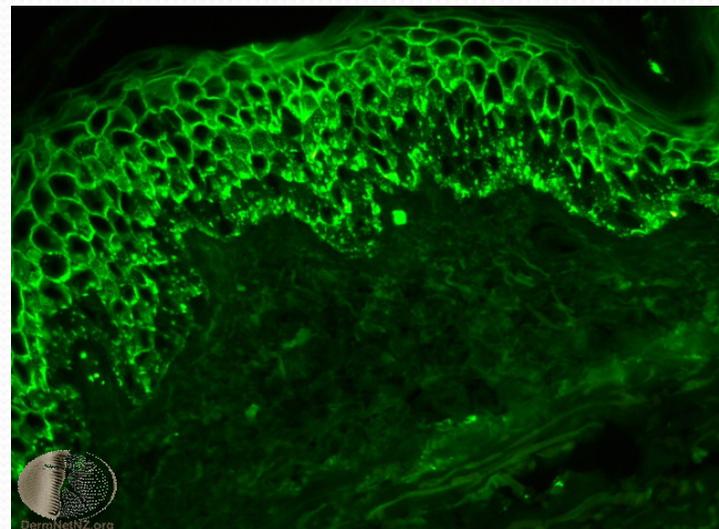
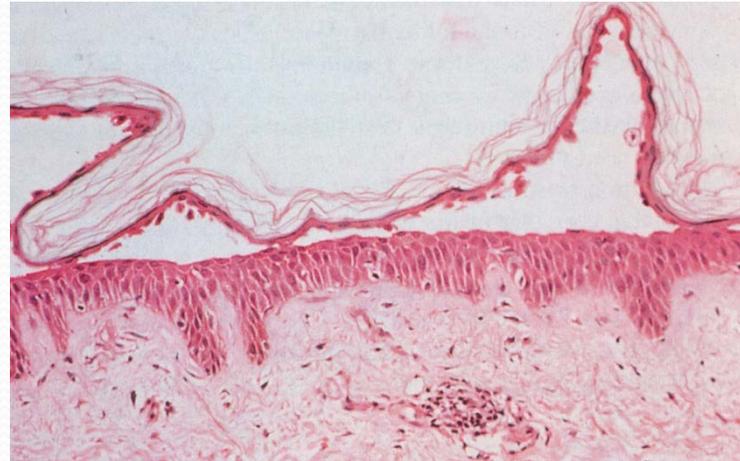
- On the back, there are multiple approximately 1 cm circular plaques with superficial erosion coalescing together. (with no mucous membrane involvement).

- Epidemiology:

- Ages 50-60
- Brazil and Columbia

- Diagnosis:

- You tell me!



Case 5

- 70 year old woman
- 2 months ago had “hive-like” lesions which continued until the current lesions appeared



Bullous Pemphigoid

Description:

- On the legs, there are many 1-5 cm bullous lesions with firm, unruptured roofs on erythematous skin (often start as urticarial type lesion)

Epidemiology:

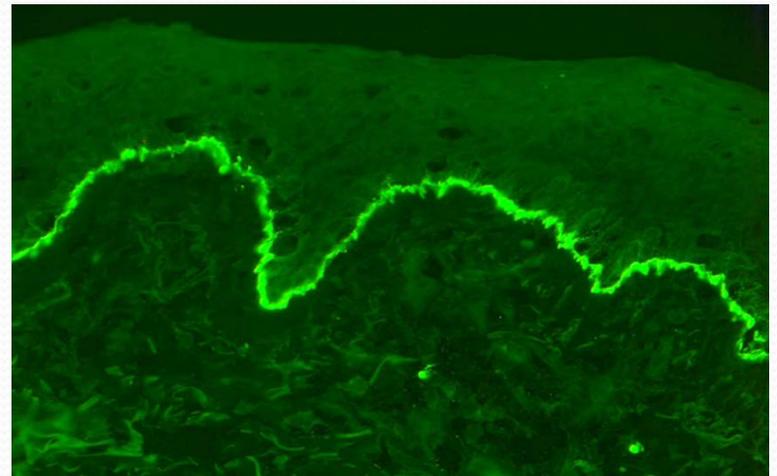
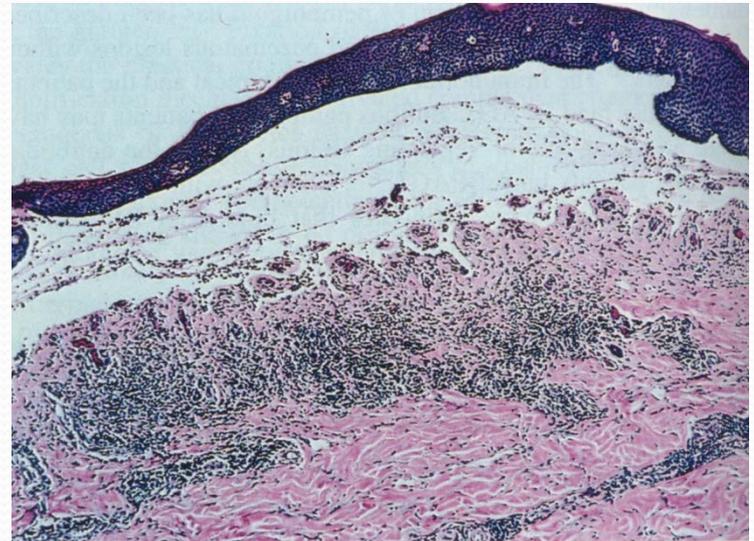
- > Age 60 or childhood

Diagnosis:

- You tell me!

Treatment:

- Prednisone to induce remission
 - Steroid-sparing agents
 - Dapsone



Case 6

- 25 year old woman
- Intensely pruritic and “burning” rash on knees, elbows, and buttocks for the past several weeks. She has a past medical history of Hashimoto’s thyroiditis for which she takes thyroid supplement.



Dermatitis Herpetiformis

Description:

- On the extensor sides of both knees, there are small grouped vesicles on an erythematous base. (strikingly symmetrical, annular pattern)

Epidemiology:

- Age 30-40

Diagnosis:

- You tell me!

- What autoantibody is involved and seen on biopsy?
- What treatment is helpful to control the disease?



Case 7

- 28 year old woman
- History of a **lesion on her lip approximately 2 weeks ago**, which was painful and crusted and went away spontaneously. Now, complains of diffuse rash **involving her palms and soles** and arthralgias.



Erythema Multiforme Minor

- Description:
 - On the palms of both hands there are multiple 5 mm-1 cm targetoid lesions with central vesicles that appear necrotic.
- Pathology:
 - Immune complex deposition in cutaneous microvasculature with mononuclear cells predominating (type 3 hypersensitivity)
- What 3 infections are often linked to EM Minor?
 - **Herpes simplex virus**
 - Coccidiomycosis
 - Mycoplasma
- What is the spectrum of disease?
 - Erythema multiforme minor
 - Erythema multiforme major (SJS)
 - Toxic epidermal necrolysis (TEN)



Case 8

- 50 year old man
- Painful blisters in sun-exposed areas; heal with scarring, several months duration
- History of IVDU and chronic renal insufficiency



Porphyria Cutanea Tarda (PCT)

Description:

- On the dorsum of the hand, there are two 1 cm unruptured bullae, on the second MCP joint, there are three white papules, and on the second PIP joint there is a pink well-circumscribed scar.

Pathophysiology:

- Enzyme in heme synthesis “UROD” functioning at 25% capacity with build up of uroporphyrin in urine and plasma

Associations:

- HEPATITIS C (50%) (IVDU)
- Liver disease
 - Iron overload or etoh abuse
- Renal failure
 - Porphorins are renally excreted



Vesiculobullous Diseases

- Herpes Simplex
- Herpes Zoster
- Pemphigus Vulgaris
- Pemphigus Foliaceus
- Bullous Pemphigoid
- Dermatitis Herpetiformis
- Erythema Multiforme
- Porphyria Cutanea Tarda

PUSTULAR

Case 1

- 25 year old man
- Rash on face, worsened by shaving
- Lesion duration: days
- Lesions are minimally tender, slightly pruritic



Superficial Folliculitis

- Multiple pustules that confined to ostium of hair follicle in the distribution of the beard
- What is the usual organism?
- Hot-tub folliculitis due to what organism?



Case 2

- A 42 year old woman
- Complains of a deep ulcer on the anterior shin which began 3 weeks ago. The patient thinks that she might have injured her leg on the edge of a coffee table, but isn't sure. She developed a nodule which broke down into a deep ulcer. On ROS, she has intermittent diarrhea and crampy abdominal pain.



Pyoderma Gangrenosum

- Irregular, boggy, blue-red ulcer with undermined “heaped up” borders surrounding a purulent, necrotic base
- What systemic disease is it most commonly associated with?
- What should you NOT do to the lesion? Why?



Case 3

- 30 year old woman
- She complains of rash surrounding her mouth for the last several months. She never had a problem with acne in her adolescence, but is distressed with her appearance and uses make up to try to hide the rash.



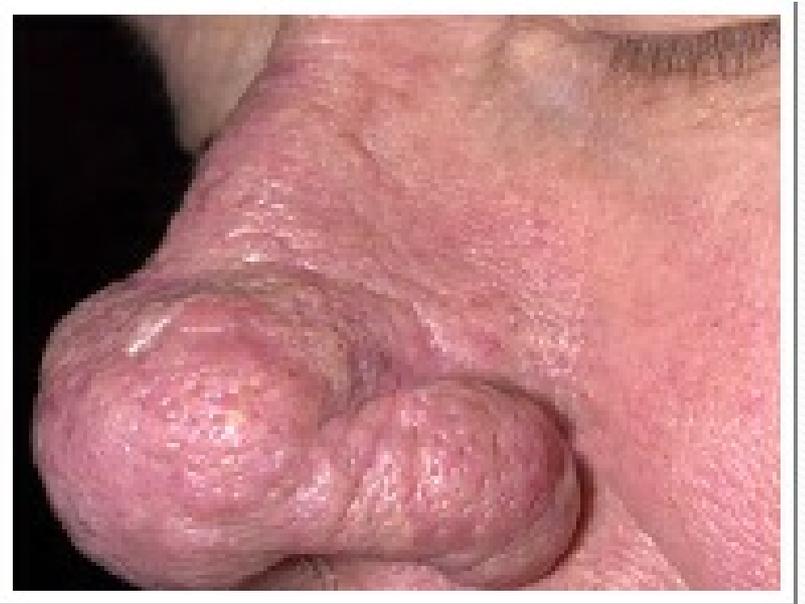
Perioral Dermatitis

- It resembles acne, with papules and pustules on an erythematous and sometimes scaling base
- Almost exclusively in females
- What do you want to ask about in medication history that could potentially cause this?



Case 4

- 50 year old woman
- Red rash on face for several months. Worsened with drinking hot tea and coffee.
- No systemic symptoms



Rosacea

- Chronic acneform inflammation of the pilosebaceous units of the face, coupled with a peculiar increased reactivity of capillaries to heat, leading to flushing and telangiectasias
- NO comedones
- What organ of the face (besides the skin) is often involved?



Case 5

- 23 year old woman
- Complaints of pain in her axillary regions, right worse than left, and a history of abscesses that she had to have drained in her right axilla in the past.



Hidradenitis Suppurativa

- Chronic, suppurative, scarring disease of apocrine glands, mostly involving the axillary and anogenital region
- What is the mainstay of treatment?



Case 6

- 20 year old woman
- Skin colored to white “bumps” for years on backs of upper arms and upper thighs
- Bothered by appearance
- PMH: asthma

- Exam: “pseudo-pustules”



Keratosis Pilaris (KP)

- Distribution: Back of arms or thighs
- Follicular plugging
- 25% of population

- Association: Atopy
- Treatment: Lac-Hydrin lotion



Pustular and Pseudopustular Diseases

- Superficial Folliculitis
- Pyoderma Gangrenosum
- Perioral dermatitis
- Rosacea
- Hidradenitis Suppurativa
- Keratosis Pilaris

SKIN-COLORED PAPULES AND NODULES

Case 1

- 10 year old girl
- Lesion duration: months
- Seen on hands and knees
- Occasionally bleed painlessly when she picks at them
- Painful lesion on the bottom of her foot



Verruca Vulgaris

- A one-cm flesh-colored nodule with frond-like protrusions on the surface
- What virus is causative?
- School children; incidence decreases after age 25
- Hyperkeratotic, “reddish-brown dots” seen with hand lens. What are these dots?

Case 2

- 23 year old woman
- Noticed the lesions on her hands a couple months ago. First started as a couple of lesions, now many.
- Not painful or pruritic



Verruca Plana (“Flat Wart”)

- Skin colored or light brown flat papules 1-5 mm
- Young children and adults
- Seen on face, dorsa of hands, shins
- What causes the linear lesions?

Case 3

- 19 year old sexually active male
- Lesions noted on face for the past 2-3 months
- Not pruritic or painful
- No systemic symptoms

Case 3



Molluscum Contagiosum

- Pearly-white or skin colored papules or nodules with **central umbilication**
- Children, Young Adults (sexually transmitted)
- What is the causative virus?
- Multiple facial lesions suggest what disease?

Case 4



Cutaneous Horn

- Differential:
 - Keratoacanthoma
 - Actinic Keratosis
 - Squamous Cell Carcinoma

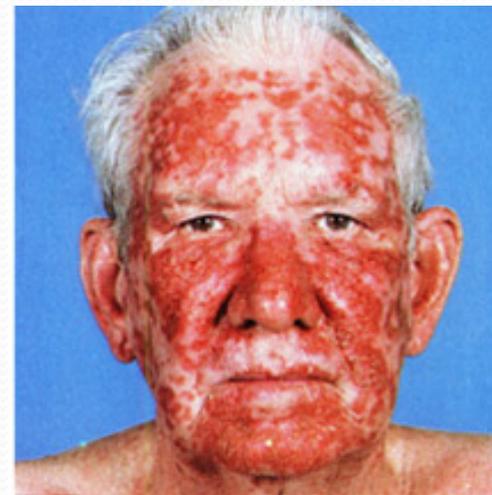
Keratoacanthoma

- Benign but mimics SCC
- Rapid growth
- Central keratotic plug
- Heals with scarring
- Surgical removal



Actinic Keratosis (AK)

- Sun exposure
- Rough red scaly hyperkeratotic papules
- Rx: Cryotherapy if few; Efudex (topical 5-FU) if generalized
- SCC from AK: 1:1000



Squamous Cell Ca. (SCC)

- SCC In Situ = Bowen's
- Well marginated, hyperkeratotic plaque usually in sun-exposed area
- Invasive SCC
 - Ulcerated
 - Metastatic (3-4%)
 - Risks:
 - Immunosuppression
 - Areas of chronic inflammation
 - Burn scars



Case 5

- 40 year old man
- Native to Arizona, likes to golf and play tennis
- Lesion present for a couple months, occasionally bleeds



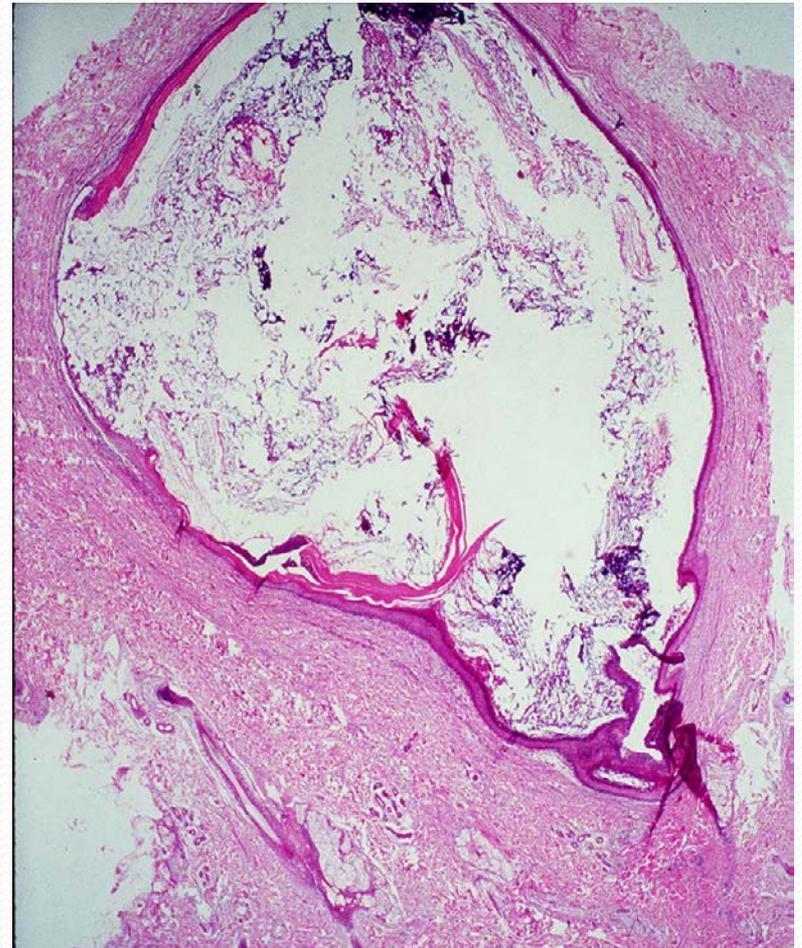
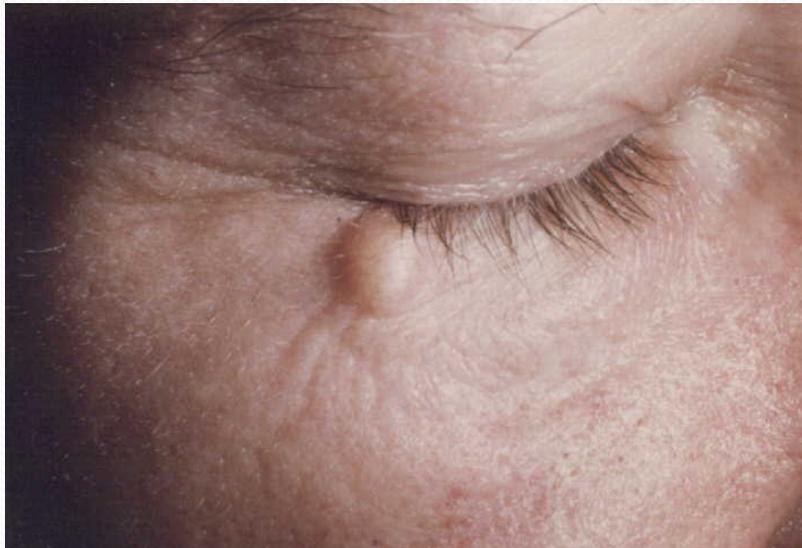
MD Challenger Sample Photo



Basal Cell Carcinoma

- **Most common** NMSC
- ~1,000,000 new BCC/year
- Classic: Skin-colored **pearly** papule with **telangiectasia** and rolled borders
- Categories: Superficial, Nodular, Pigmented, Sclerosing
- **Rarely metastatic** – local invasion “Rodent ulcer”

Case 6



Epidermoid Cyst

- Synonyms: Wen, sebaceous cyst, epidermal cyst
- Follicular with CENTRAL PORE
- Keratinaceous debris
- “CHEESY”, smell rancid
- Ruptured cyst invokes inflammation; it does not mean it is infected!
- Important to remove sack or will recur!

Case 7



Dermatofibroma (DF)

- Very common!
- Adult females
- Lower leg
- Common post trauma/bite

- DERMAL
- “Dimple sign”

Skin-colored papules and nodules

- Verruca Vulgaris
- Verruca Plana
- Molluscum contagiosum
- Cutaneous Horn
- Keratoacanthoma
- Actinic keratosis
- Squamous cell CA
- Basal cell CA
- Epidermoid cyst
- Dermatofibroma

WHITE LESIONS

Case 1



Vitiligo

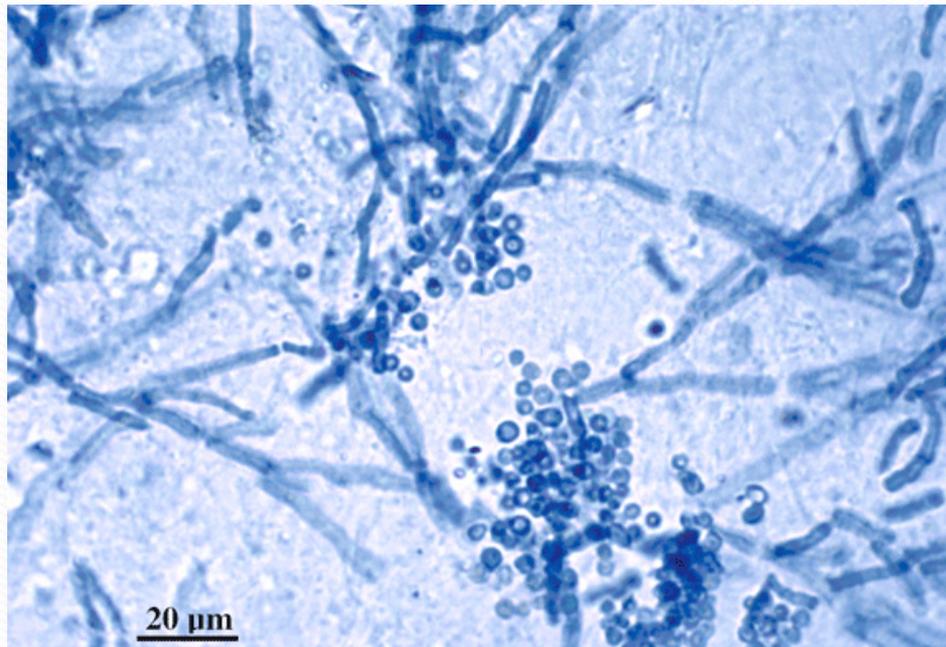
- Autoimmune destruction of melanocytes
- Poliosis: Vitiligo macule
- Association: Thyroid Disease (30%)
 - Also: Pernicious anemia, Addison's, Diabetes type 1
- Very difficult to treat in hairless areas!
 - Recruits melanocytes from follicles
 - Glucocorticoids and phototherapy

Case 2



Tinea Versicolor

- Clinical: Hyper or hypopigmented
- KOH: Spaghetti and meatballs



White lesions

- Vitiligo
- Tinea versicolor

BLUE, BLACK, and BROWN LESIONS

Case 1





Acanthosis Nigricans

1. Internal Malignancy
 - Adenocarcinoma
 - More mucosal involvement
2. Insulin Resistance
 - Presumed mechanism: ↑↑ **IGF**
 - Skin tags (acrochordon)
 - Tripe palms

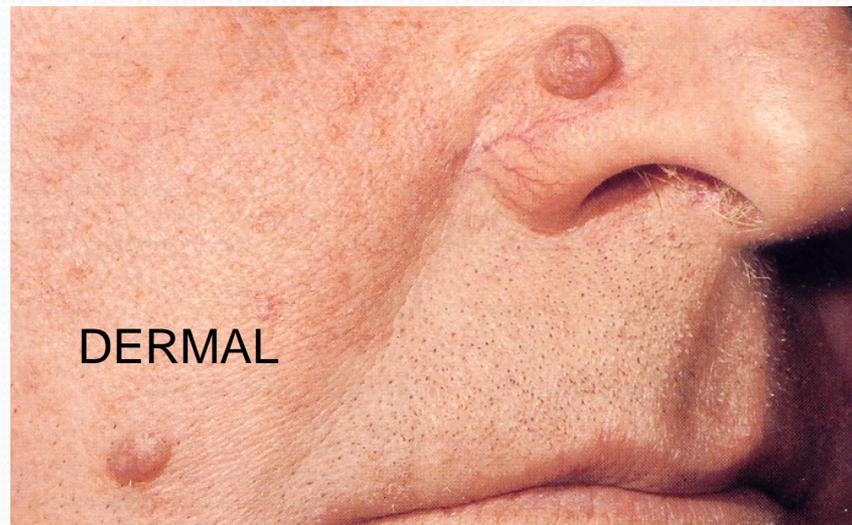
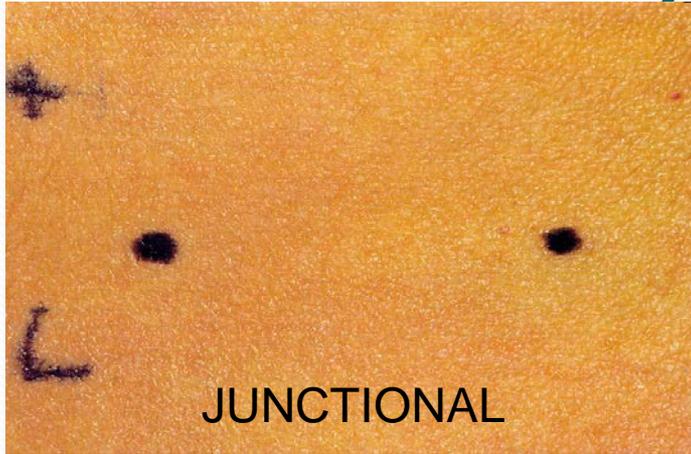
Case 2



Melasma (Chloasma) “Mask of Pregnancy”

- 90% Female
- ? Due to progesterone
- Risk factors: Pregnancy, OCPs
 - Always in addition to sun
- Tx: Bleaching + Sunscreen

Case 3: Types of Nevi



Case 4: Melanoma

- Asymmetry
 - Border Irregularities
 - Color Variation
 - Diameter < 6mm
 - Elevation
-
- Dermatologists like to refer to the “flag sign”.



Types of melanomas



Superficial spreading



Nodular



Lentigo maligna melanoma



Acral melanoma

Blue, Black and Brown Lesions

- Acanthosis Nigricans
- Melasma
- Nevus
- Melanoma

YELLOW LESIONS

Case 1



Xanthomata

- TYPES
 - Tendinous xanthoma
 - Tuberos xanthoma
 - Eruptive xanthoma
 - Palmar xanthoma
 - Xanthlasma
- Lipid abnormalities

Case 2



Necrobiosis Lipoidica

- Previously called: NLD
- 1/3 Patients DM
- 1/3 Abnormal GTT
- 1/3 Normal Glucose Tolerance
- Control of DM does not affect course of skin lesion
- Glucocorticoids (Topical/Intralesional)

Case 3

MI at age 37

Angioid streaks
on retinal exam

“Chicken-skin”
appearance to
neck



Pseudoxanthoma elasticum

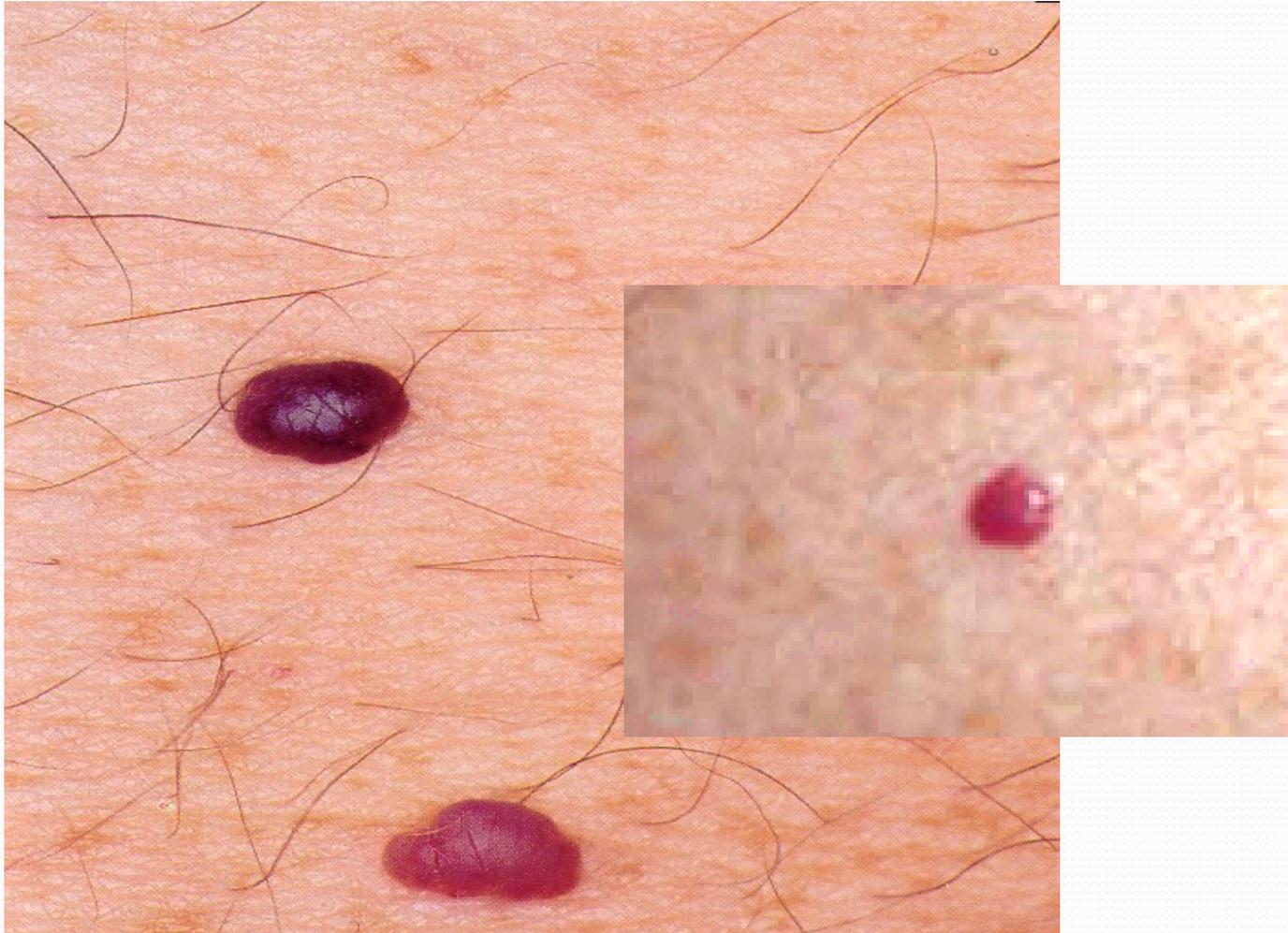
- Connective tissue disorder (Elastin)
 - Skin: **Peau d'orange**
 - Blood vessels: **Premature MI**, Renovascular HTN, Claudication
 - Eye: **Angioid streaks of retina**
 - GI: Gastric artery hemorrhage (hematemesis)
- “Chicken skin”
- Genetic Counseling

Yellow lesions

- Xanthomata
- Necrobiosis Lipoidica
- Pseudoxanthoma Elasticum

RED PAPULES AND NODULES

Case 1: Cherry Angiomata



Case 2



Erythema Nodosum (EN)

- NECK:
 - Post-streptococcal infxn
- CHEST
 - Cocci/Sarcoidosis
- ABDOMEN
 - Inflammatory bowel dz
- PELVIS
 - OCPs
- TENDER deep inflammation of CT around fat



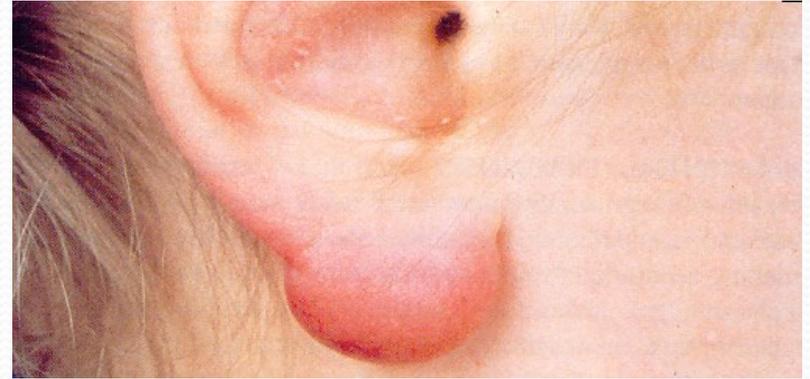
Case 3: Lyme disease



ERYTHEMA CHRONICUM MIGRANS

What is the organism?

Borrelia Burgdorferi



LYMPHOCYTOMA CUTIS



Courtesy of Prof. Gerold Stanek

ACRODERMATITIS CHRONICA
ATROPHICANS

Case 4



SWEET'S SYNDROME

(Acute Neutrophilic Dermatositis)

- Red tender plaques
- Sweet's is a reaction to an internal condition.
- It may follow:
 - Upper respiratory tract infection (strep throat)
 - Vaccination
 - **Inflammatory bowel disease** (UC or Crohn's)
 - Rheumatoid arthritis
- Blood disorders including **leukemia** (AML).
- **Internal cancer** (bowel, GU or breast)
- Pregnancy
- **Drugs** (G-CSF, NSAIDs, cotrimoxazole)
- Sometimes difficult to distinguish from PG

Red papules and nodules: (solid, red, non-scaling)

- Cherry angiomas
- Erythema nodosum
- Erythema chronicum migrans
- Sweet's syndrome

VASCULAR REACTIONS

Case 1



Henoch-Schonlein Purpura

- Palpable Purpura
- Non-blanching on diascopy

- Association? URI (75%)
- GI: Bowel angina or bloody diarrhea
- Arthritis

- UA...HEMATURIA (RBC casts)
- What is HSP localized to the kidney?

IgA Nephropathy (Berger's Disease)

Case 2



Leukocytoclastic Vasculitis

- Palpable Purpura
- Histologic diagnosis (no etiology)
- Small vessel necrotizing vasculitis
 - MOST COMMON
- Immune complexes in walls of post-capillary venules
- Major cause: Drugs

Case 3:

Morbilliform Drug Eruption



Case 4



Urticaria

- Wheals (Hives)
- Blanching on diascopy

- Classification: Acute or Chronic
- Many physical and immunologic causes

- Changes in size and shape and can disappear -
DYNAMIC

Case 5: Angioedema



- Hereditary or Acquired

First test to check is C4!



Vascular Reactions

- Henoch-Schonlein Purpura
- Leukocytoclastic vasculitis
- Morbilliform drug eruption
- Urticaria
- Angioedema

PAPULOSQUAMOUS

The 3 Ps, 3Ls, and Fungus!

Case 1





PSORIASIS

- Many types
 - Plaque
 - Scalp
 - Pustular
 - Guttate
 - **POST-STREP**
- Nail pitting
- Onycholysis
- Oil spots



Case 2:

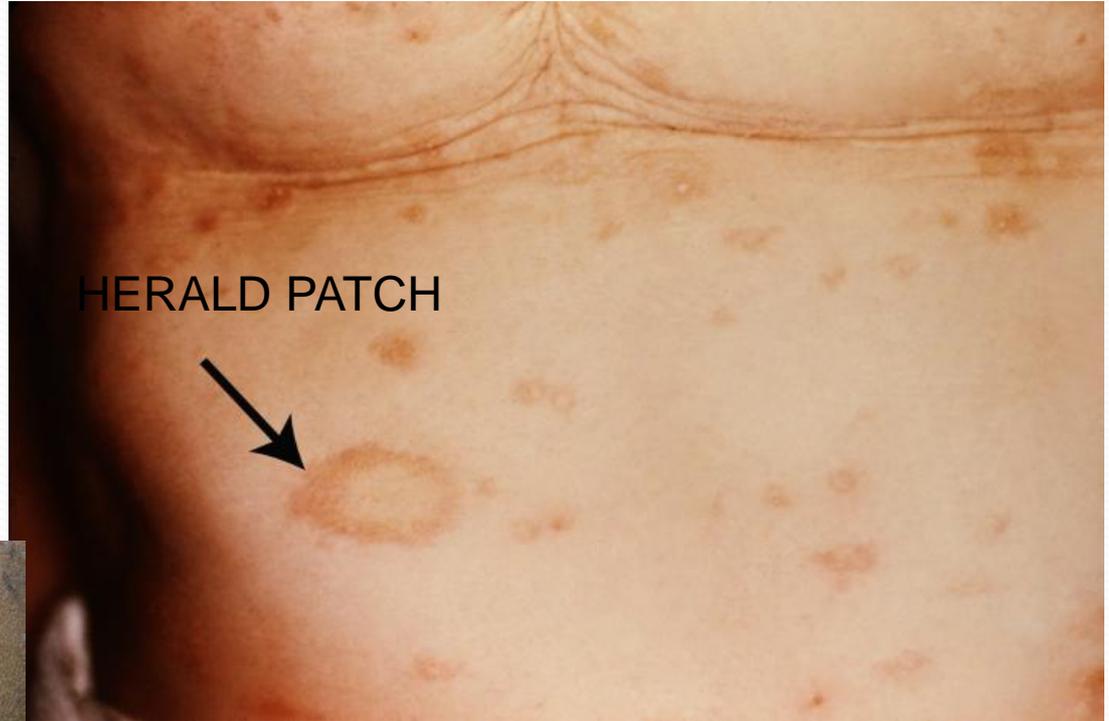
Parapsoriasis – Cutaneous T-cell Lymphoma (Mycosis Fungoides and Sezary Syndrome)



Case 3



Pityriasis Rosea



DISTRIBUTION?



PROBABLE
VIRUS?

HHV-7

3Ps: Papulosquamous

- Psoriasis
- Parapsoriasis
- Pityriasis Rosea

- Now to the Ls...

Case 4



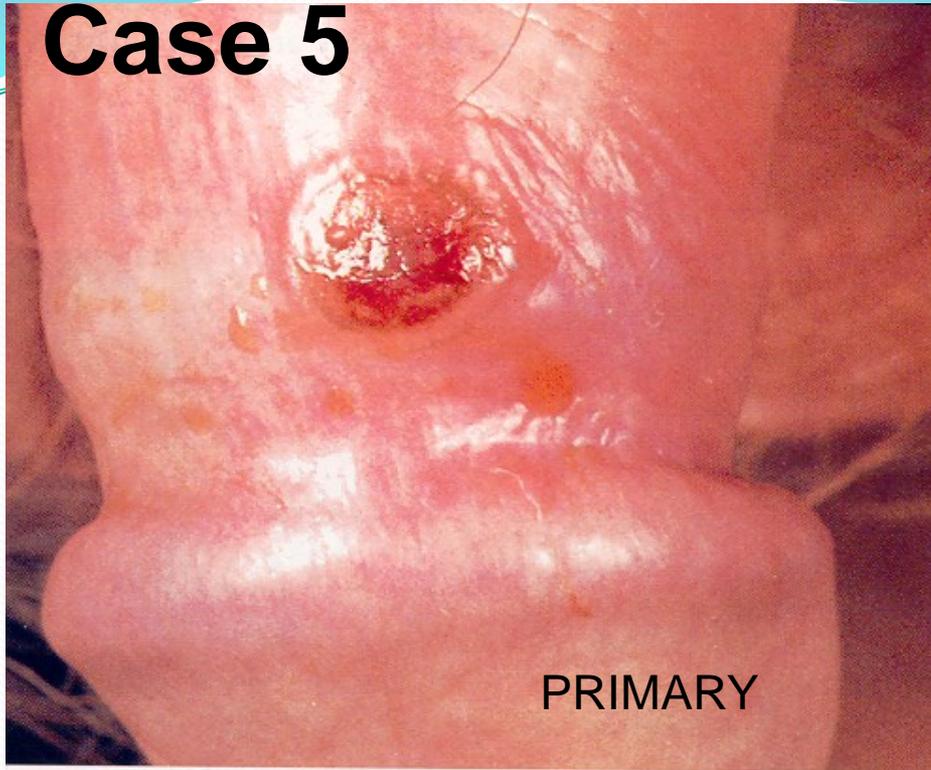
LICHEN PLANUS

Classic description

- 5Ps
 - PURPLE
 - POLYGONAL
 - PLANAR
 - PRURITIC
 - PAPULES
- What are the little white lines atop the LP?
WICKHAM'S STRIAE
- Major Association?
HEPATITIS C

When you see a papulosquamous
disease, be careful because
it could be...

Case 5



Lues (Secondary Syphilis)

- Palms and soles involved
- Primary lesion: Chancre
- Secondary (in addition to rash)?

CONDYLOMA LATA

- Tertiary: Neurosyphilis/Aortitis/Gummas

Case 6: LUPUS



KNUCKLE
SPARING



Papulosquamous= 3P's, 3L's

- Psoriasis
- Parapsoriasis
- Pityriasis Rosea
- Lichen Planus
- Lues (Secondary Syphilis)
- Lupus
- AND

Fungal Infections

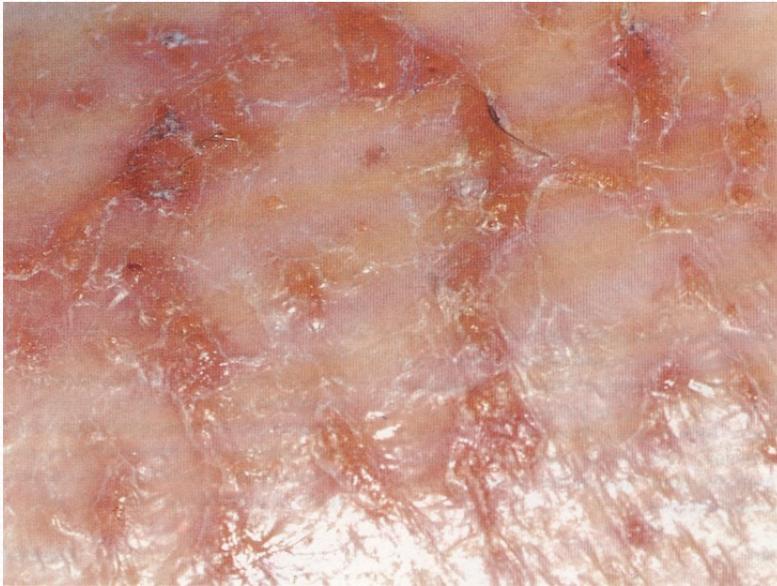


ECZEMATOUS DISEASES

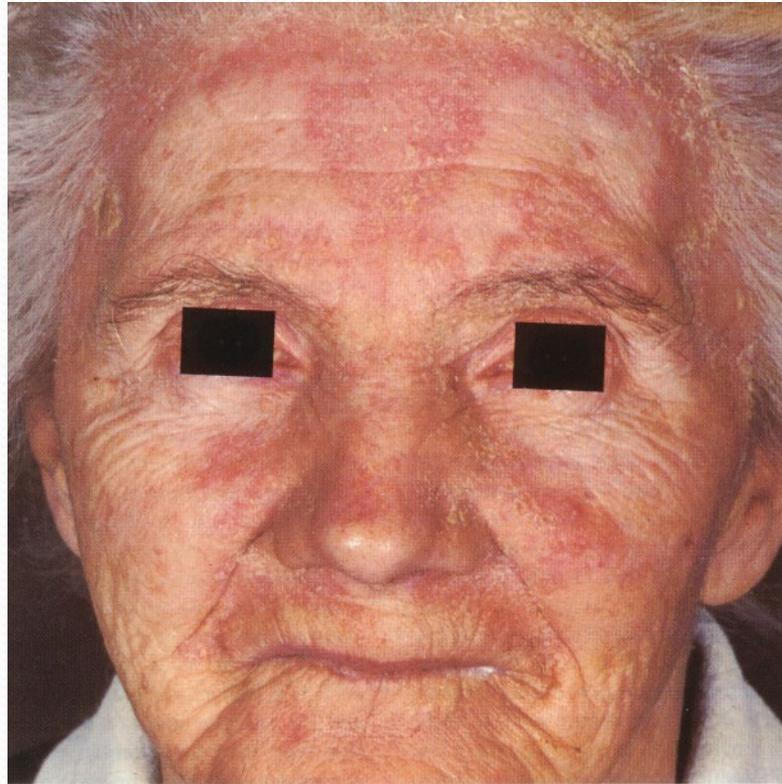
Atopic Dermatitis



Asteatotic Dermatitis (Eczema Craquele)



Seborrheic Dermatitis (Dandruff)



Contact Dermatitis

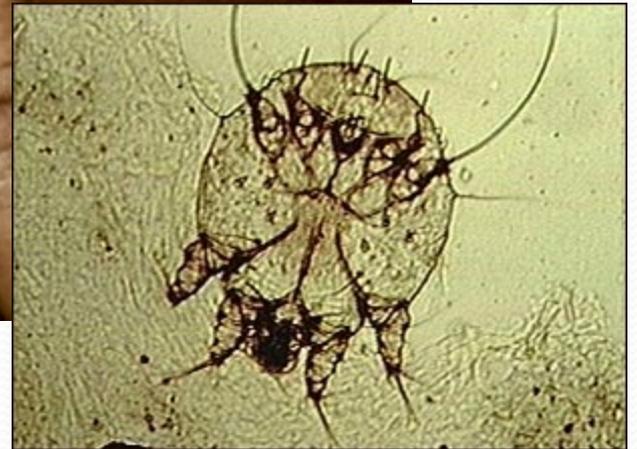


What kind of testing is this??
PATCH TESTING

Contact Dermatitis

- Allergic Contact
 - Nickel
 - Neomycin
 - Tape
- Irritant Contact
 - Lip-lickers
 - Dribble
 - Chemicals

Last one! Scabies



Eczematous Diseases

- Atopic dermatitis
- Eczema craquelatum (asteatotic)
- Seborrheic dermatitis
- Contact dermatitis
- Scabies

SKIN-COLORED PAPULES AND NODULES

Case 1

- 10 year old girl
- Lesion duration: months
- Seen on hands and knees
- Occasionally bleed painlessly when she picks at them
- Painful lesion on the bottom of her foot



Verruca Vulgaris

- A one-cm flesh-colored nodule with frond-like protrusions on the surface
- What virus is causative?
- School children; incidence decreases after age 25
- Hyperkeratotic, “reddish-brown dots” seen with hand lens. What are these dots?



Verruca Plantaris

- One-cm flesh-colored flat-topped plaque with loss of skin markings and firm-pressed scale on the surface
- Lesions appear often on sites of pressure, may be multiple
- Tenderness may be marked
- What is in the differential?
- How do you tell the plantar wart from the other differential diagnoses?

Case 2

- 23 year old woman
- Noticed the lesions on her hands a couple months ago. First started as a couple of lesions, now many.
- Not painful or pruritic



Verruca Plana (“Flat Wart”)

- Skin colored or light brown flat papules 1-5 mm
- Young children and adults
- Seen on face, dorsa of hands, shins
- What causes the linear lesions?

Case 3

- 19 year old sexually active male
- Lesions noted on face for the past 2-3 months
- Not pruritic or painful
- No systemic symptoms

Case 3



Molluscum Contagiosum

- Pearly-white or skin colored papules or nodules with **central umbilication**
- Children, Young Adults (sexually transmitted)
- What is the causative virus?
- Multiple facial lesions suggest what disease?

Actinic Keratosis (AK)

- Sun exposure
- Rough red scaly hyperkeratotic papules
- Rx: Cryotherapy if few; Efudex (topical 5-FU) if generalized
- SCC from AK: 1:1000



Squamous Cell Ca. (SCC)

- SCC In Situ = Bowen's
- Well marginated, hyperkeratotic plaque usually in sun-exposed area
- Invasive SCC
 - Ulcerated
 - Metastatic (3-4%)
 - Risks:
 - Immunosuppression
 - Areas of chronic inflammation
 - Burn scars



Case 5

- 40 year old man
- Native to Arizona, likes to golf and play tennis
- Lesion present for a couple months, occasionally bleeds

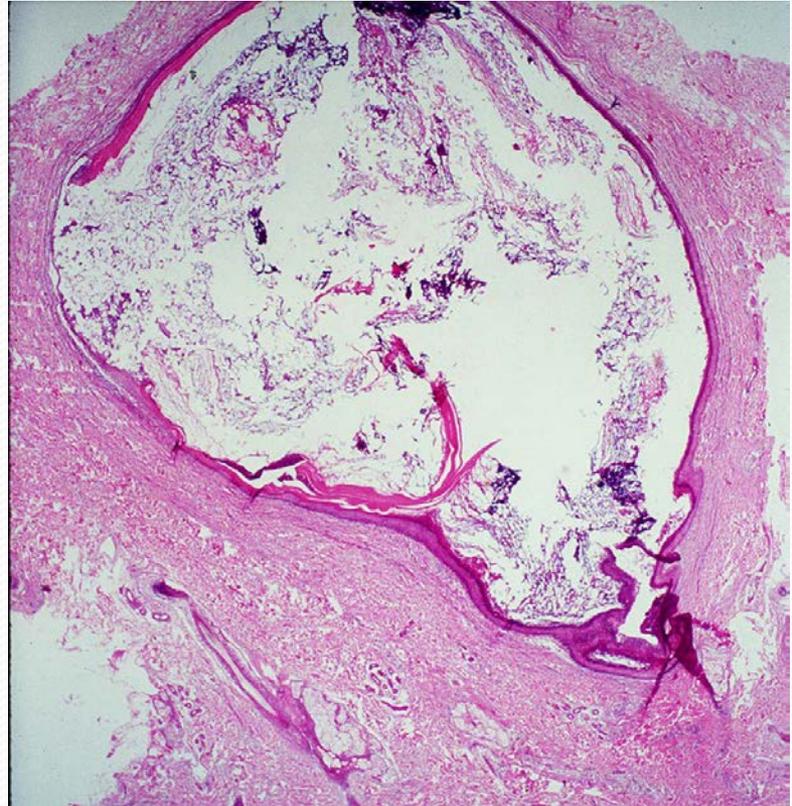
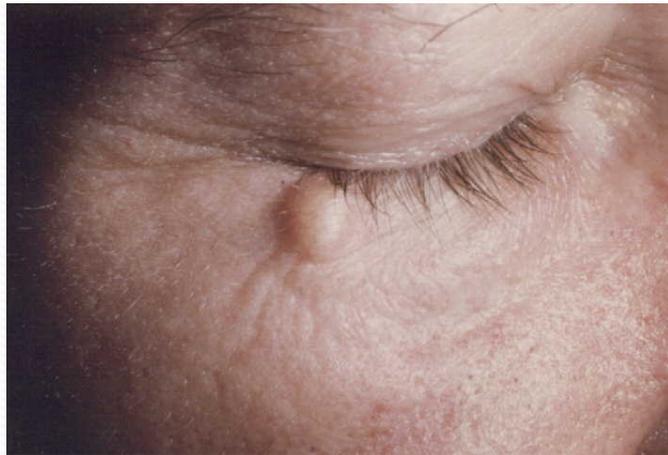
MD Challenger Sample Photo



Basal Cell Carcinoma

- **Most common** NMSC
- ~1,000,000 new BCC/year
- Classic: Skin-colored **pearly** papule with **telangiectasia** and rolled borders
- Categories: Superficial, Nodular, Pigmented, Sclerosing
- **Rarely metastatic** – local invasion “Rodent ulcer”

Case 6



Epidermoid Cyst

- Synonyms: Wen, sebaceous cyst, epidermal cyst
- Follicular with CENTRAL PORE
- Keratinaceous debris
- “CHEESY”, smell rancid
- Ruptured cyst invokes inflammation; it does not mean it is infected!
- Important to remove sack or will recur!

Case 7



Dermatofibroma (DF)

- Very common!
- Adult females
- Lower leg
- Common post trauma/bite

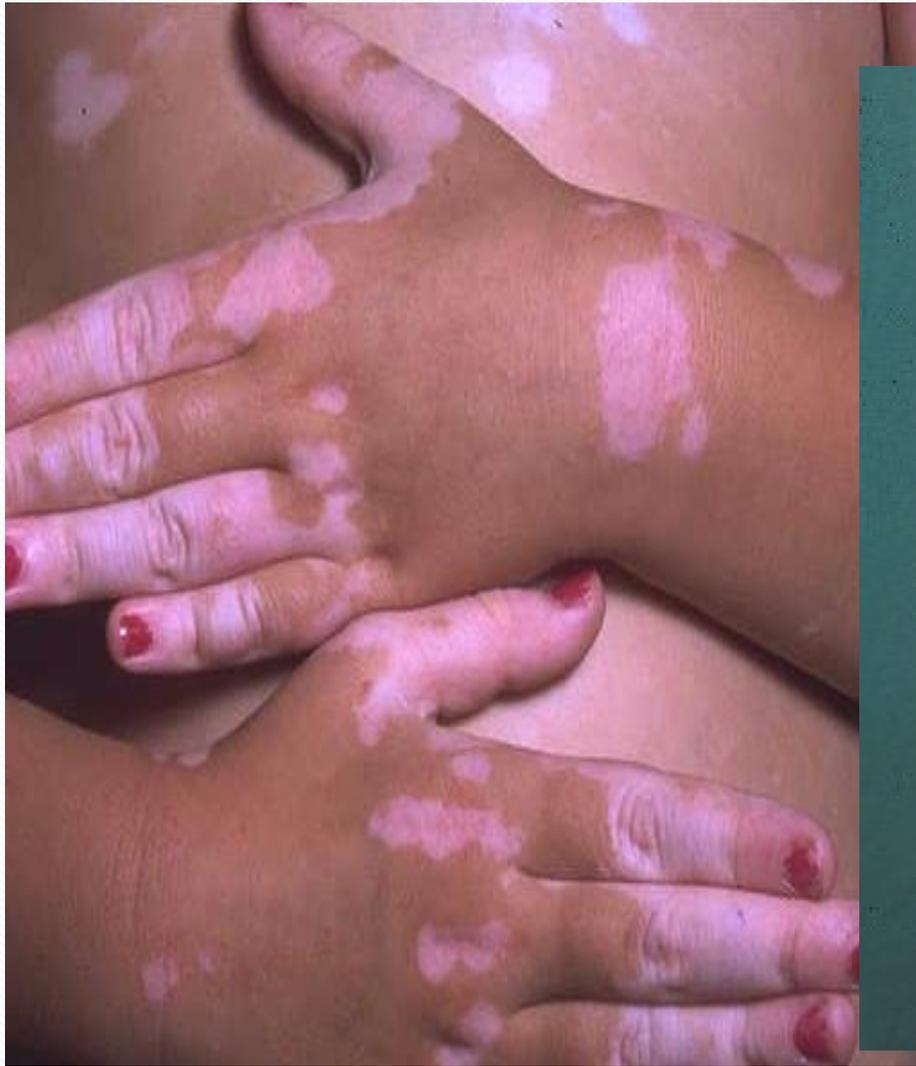
- DERMAL
- “Dimple sign”

Skin-colored papules and nodules

- Keratoacanthoma
- Actinic keratosis
- Squamous cell CA
- Basal cell CA
- Epidermoid cyst
- Dermatofibroma
- Verruca Vulgaris
- Verruca Plantaris
- Verruca Plana
- Molluscum contagiosum
- Cutaneous Horn

WHITE LESIONS

Case 1



Vitiligo

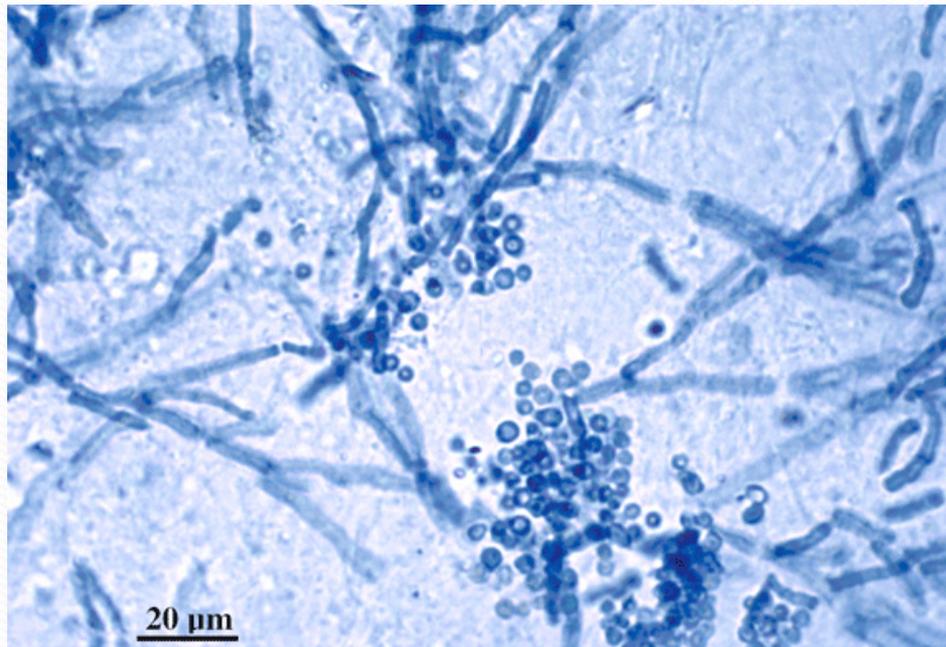
- Autoimmune destruction of melanocytes
- Poliosis: Vitiligo macule
- Association: Thyroid Disease (30%)
 - Also: Pernicious anemia, Addison's, Diabetes
- Very difficult to treat in hairless areas!
 - Recruits melanocytes from follicles
 - Glucocorticoids and phototherapy

Case 2



Tinea Versicolor

- Clinical: Hyper or hypopigmented
- KOH: Spaghetti and meatballs



White lesions

- Vitiligo
- Tinea versicolor

BLUE, BLACK, and BROWN LESIONS

Case 1

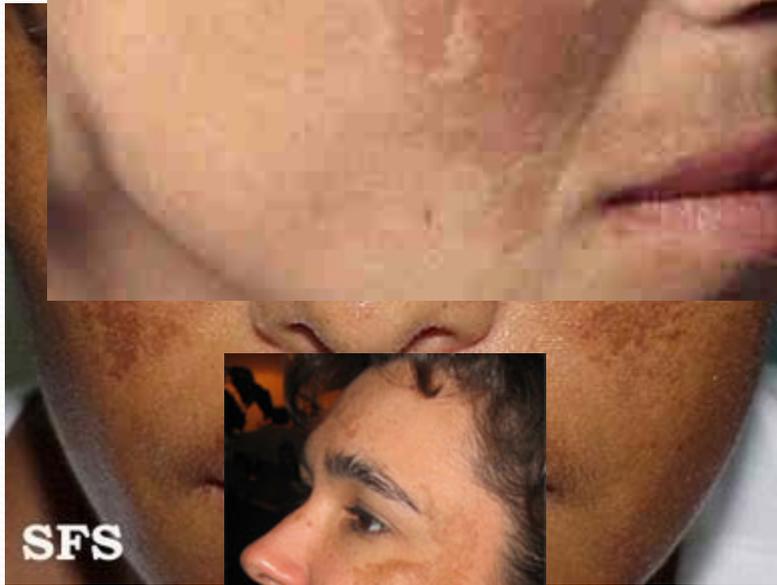




Acanthosis Nigricans

1. Internal Malignancy
 - Adenocarcinoma
 - More mucosal involvement
2. Insulin Resistance
 - Presumed mechanism: ↑↑ **IGF**
 - Skin tags (acrochordon)
 - Tripe palms

Case 2



SFS



Melasma (Chloasma) “Mask of Pregnancy”

- 90% Female
- ? Due to progesterone
- Risk factors: Pregnancy, OCPs
 - Always in addition to sun
- Tx: Bleaching + Sunscreen

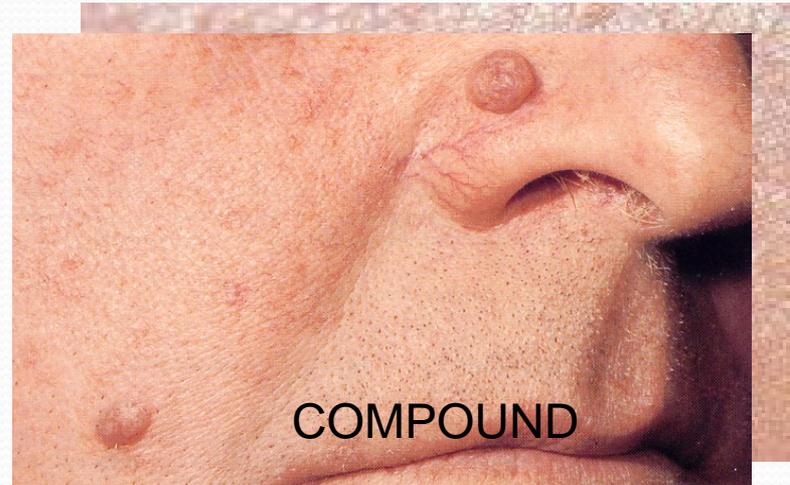
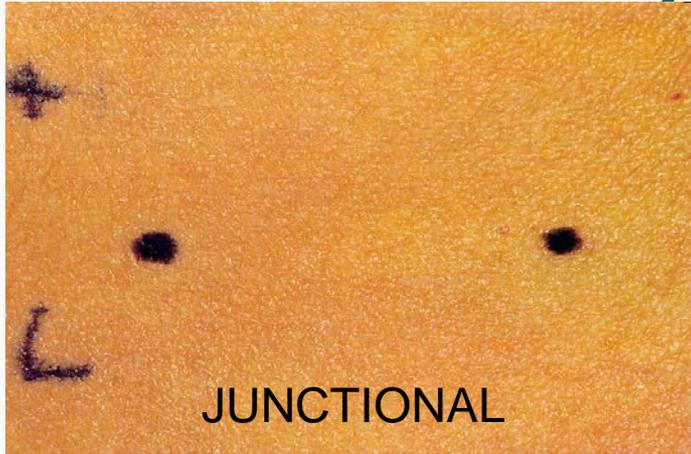
Case 3:

Ephelides versus Lentigines (Freckles) (Liver spots)



PEUTZ-JEGHERS
(poyts-yay-gurz)

Case 4: Types of Nevi



DERMAL

Case 5: Melanoma

- Asymmetry
 - Border Irregularities
 - Color Variation
 - Diameter < 6mm
 - Elevation
-
- Dermatologists like to refer to the “flag sign”.



Types of melanomas



Superficial spreading



Nodular



Lentigo maligna melanoma



Acral melanoma

Blue, Black and Brown Lesions

- Acanthosis Nigricans
- Melasma
- Ephelides
- Lentigines
- Nevus
- Melanoma

YELLOW LESIONS

Case 1



Xanthomata

- TYPES
 - Tendinous xanthoma
 - Tuberos xanthoma
 - Eruptive xanthoma
 - Palmar xanthoma
 - Xanthlasma
- Lipid abnormalities

Case 2



Necrobiosis Lipoidica

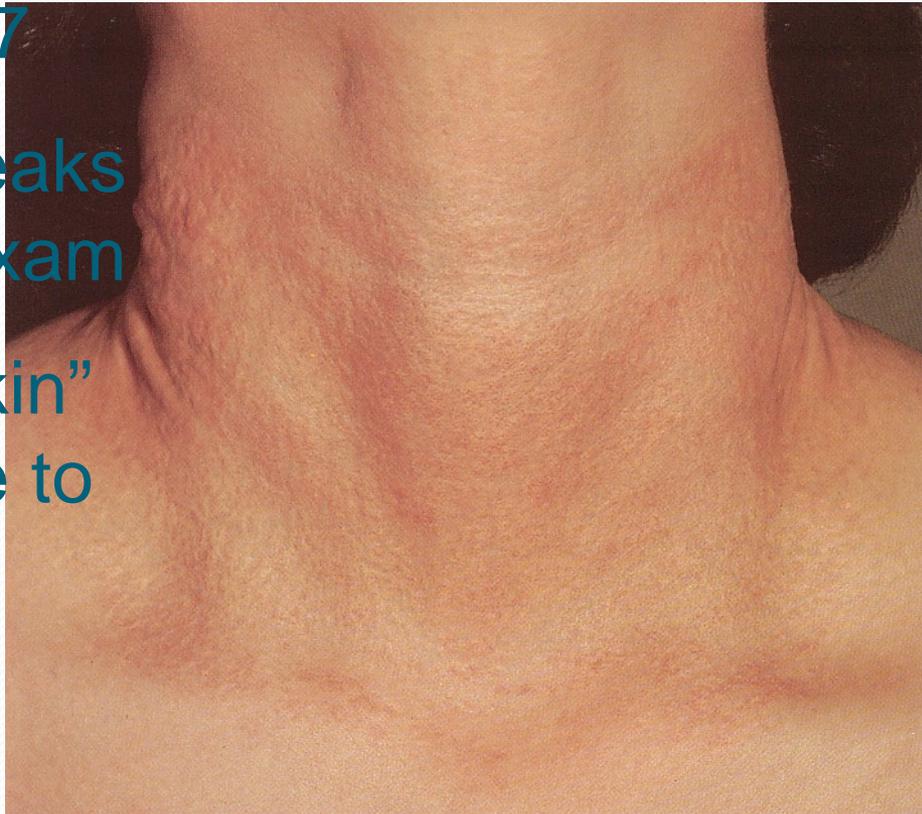
- Previously called: NLD
- 1/3 Patients DM
- 1/3 Abnormal GTT
- 1/3 Normal Glucose Tolerance
- Control of DM does not affect course of skin lesion
- Glucocorticoids (Topical/Intralesional)

Case 3

MI at age 37

Angioid streaks
on retinal exam

“Chicken-skin”
appearance to
neck



Pseudoxanthoma elasticum

- Connective tissue disorder (Elastin)
 - Skin: **Peau d'orange**
 - Blood vessels: **Premature MI**, Renovascular HTN, Claudication
 - Eye: **Angioid streaks of retina**
 - GI: Gastric artery hemorrhage (hematemesis)
- “Chicken skin”
- Genetic Counseling

Yellow lesions

- Xanthomata
- Necrobiosis Lipoidica
- Pseudoxanthoma Elasticum

RED PAPULES AND NODULES

Case 1 · Cherry Angiomata



Case 2

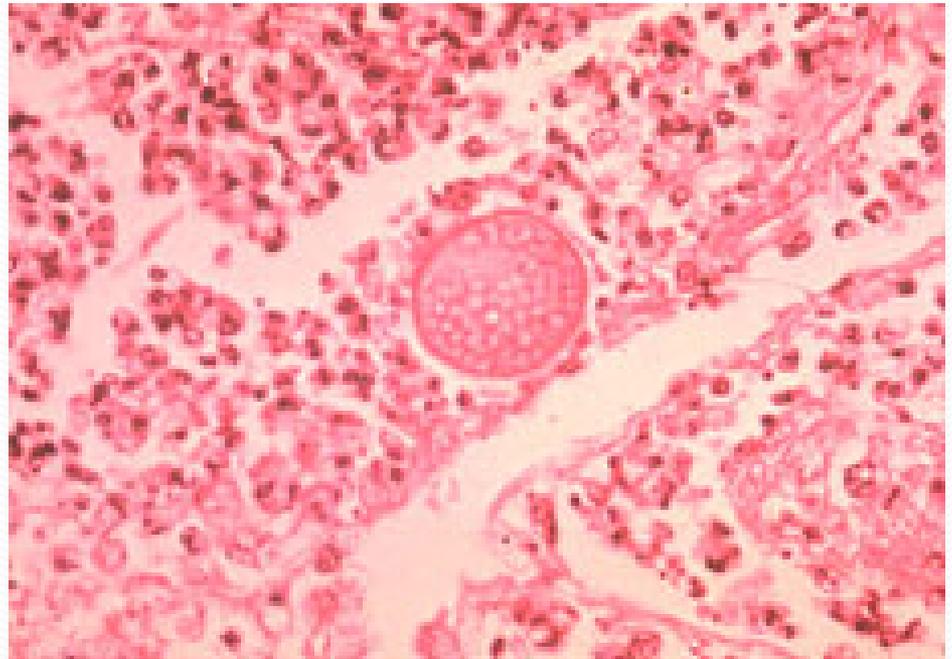


Erythema Nodosum (EN)

- Poststreptococcal
- Cocci
- OCPs
- IBD
- Sarcoidosis

- TENDER

- PANNICULITIS
 - Very deep



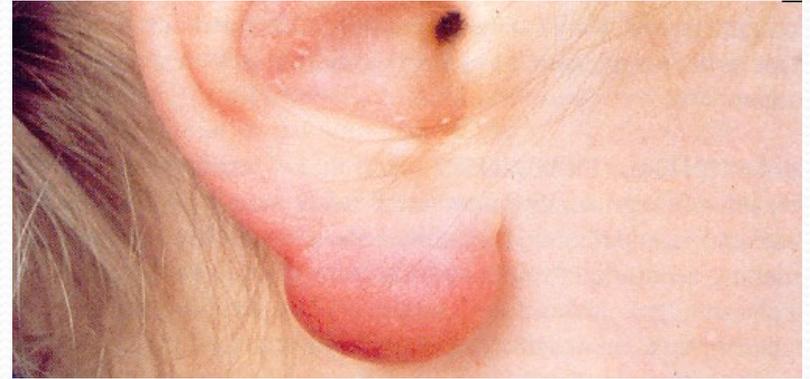
Case 3: Lyme disease



ERYTHEMA CHRONICUM MIGRANS

What is the organism?

Borrelia Burgdorferi



LYMPHOCYTOMA CUTIS



Courtesy of Prof. Gerold Stanek

ACRODERMATITIS CHRONICA
ATROPHICANS

Case 4



SWEET'S SYNDROME

(Acute Neutrophilic Dermatitis)

- Red tender plaques
- Sweet's is a reaction to an internal condition.
- It may follow:
 - Upper respiratory tract infection (strep throat)
 - Vaccination
 - **Inflammatory bowel disease** (UC or Crohn's)
 - Rheumatoid arthritis
 - Blood disorders including **leukemia** (AML).
 - **Internal cancer** (bowel, GU or breast)
 - Pregnancy
 - **Drugs** (G-CSF, NSAIDs, cotrimoxazole)
- Sometimes difficult to distinguish from PG

Red papules and nodules: (solid, red, nonscaling)

- Cherry angiomas
- Erythema nodosum
- Erythema chronicum migrans
- Sweet's syndrome

VASCULAR REACTIONS

Case 1



Henoch-Schonlein Purpura

- Palpable Purpura
- Non-blanching on diascopy
- Association? URI (75%)
- GI: Bowel angina or bloody diarrhea
- Arthritis
- UA...HEMATURIA (RBC casts)
- What is HSP localized to the kidney?

IgA Nephropathy (Berger's Disease)

Case 2



Leukocytoclastic Vasculitis

- Palpable Purpura
- Histologic diagnosis (no etiology)
- Small vessel necrotizing vasculitis
 - MOST COMMON
- Immune complexes in walls of post-capillary venules
- Major cause: Drugs

Case 3: Fixed Drug Eruption



MOST COMMON SITE?

GLANS PENIS

Case 4:

Morbilliform Drug Eruption



Case 5



Urticaria

- Wheals (Hives)
- Blanching on diascopy

- Classification: Acute or Chronic
- Many physical and immunologic causes

- Changes in size and shape and can disappear -
DYNAMIC

Case 6: Angioedema



Hereditary Defect?

C1INH

Vascular Reactions

- Henoch-Schonlein Purpura
- Leukocytoclastic vasculitis
- Fixed drug eruption
- Morbilliform drug eruption
- Urticaria
- Angioedema

PAPULOSQUAMOUS

The 3 Ps, 3Ls, and Fungus!

Case 1





PSORIASIS

- Many types
 - Plaque
 - Scalp
 - Pustular
 - Guttate
 - **POST-STREP**
- Nail pitting
- Onycholysis
- Oil spots



Case 2:

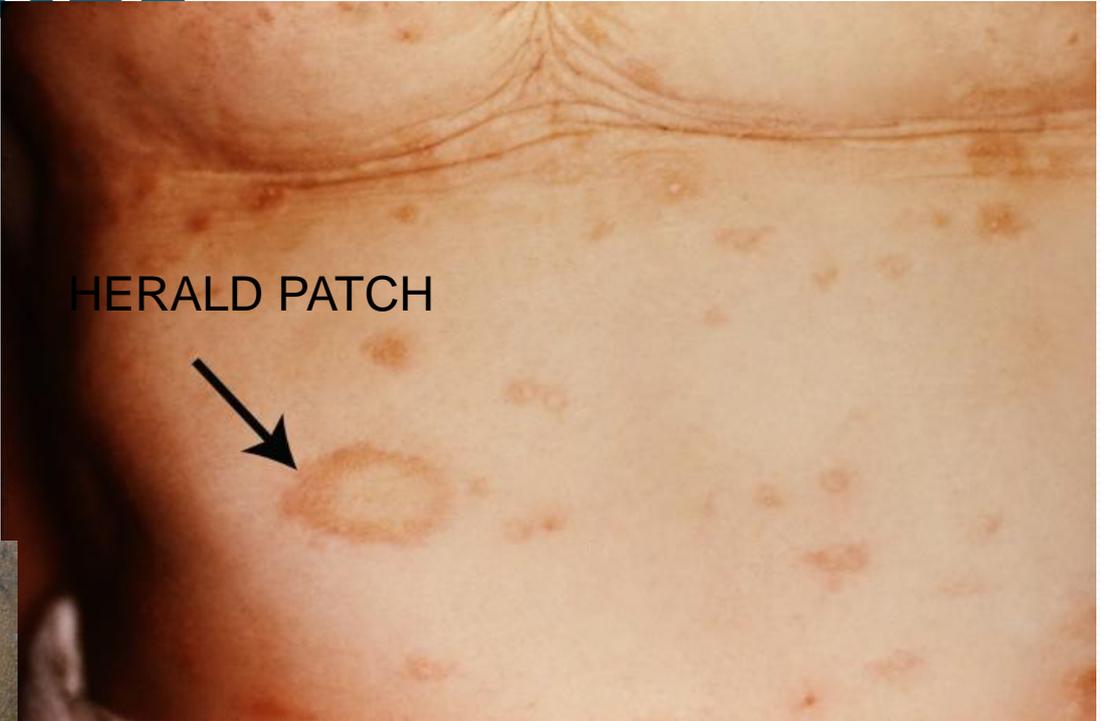
Parapsoriasis – Cutaneous T-cell Lymphoma (Mycosis Fungoides and Sezary Syndrome)



Case 3



Pityriasis Rosea



DISTRIBUTION?



PROBABLE
VIRUS?

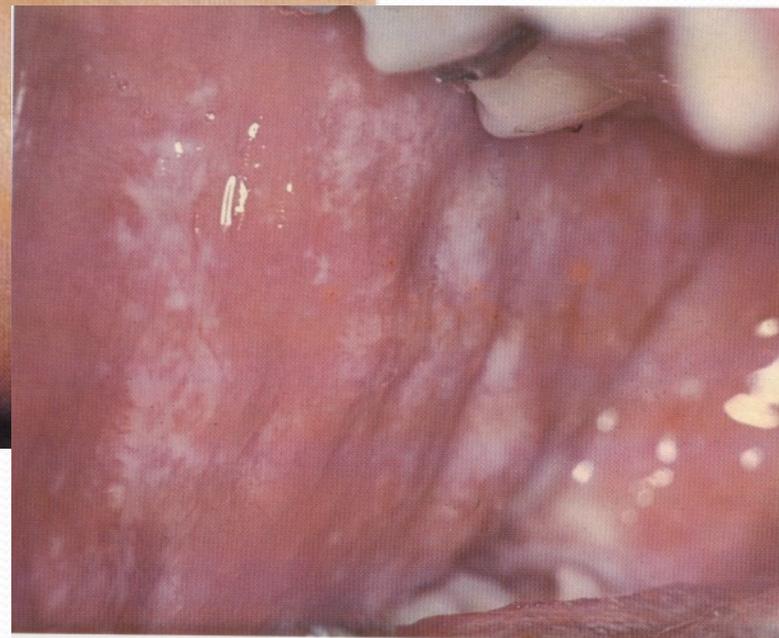
HHV-7

3Ps: Papulosquamous

- Psoriasis
- Parapsoriasis
- Pityriasis Rosea

- Now to the Ls...

Case 4



LICHEN PLANUS

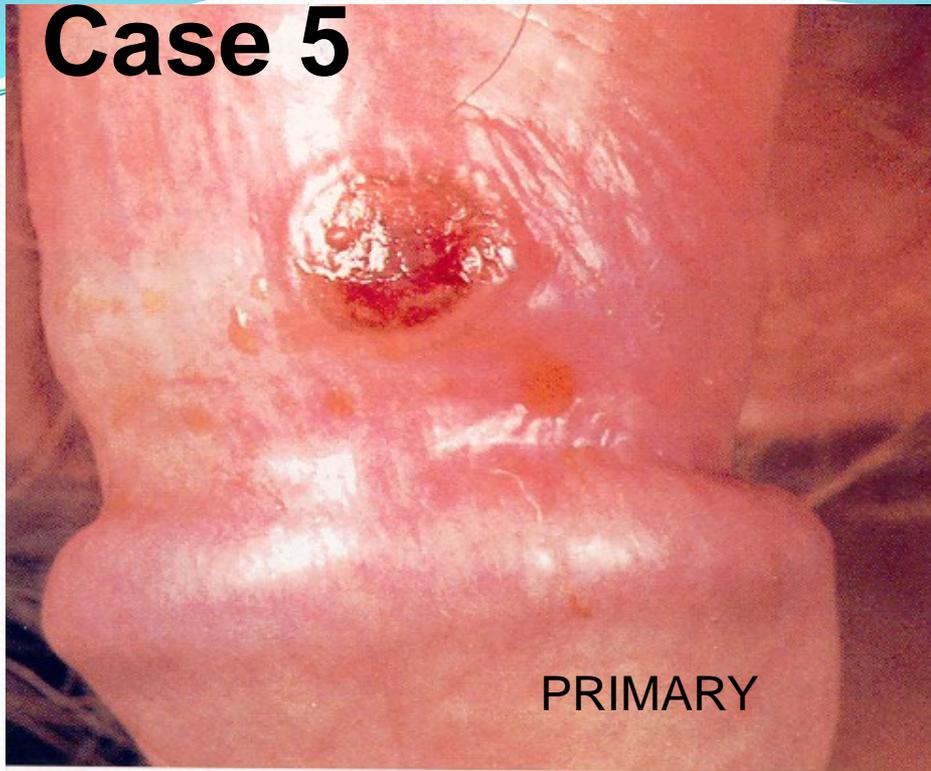
Classic description

- 5Ps
 - PURPLE
 - POLYGONAL
 - PLANAR
 - PRURITIC
 - PAPULES
- What are the little white lines atop the LP?
- Major Association?
WICKHAM'S STRIAE

HEPATITIS C

When you see a papulosquamous
disease, be careful because
it could be...

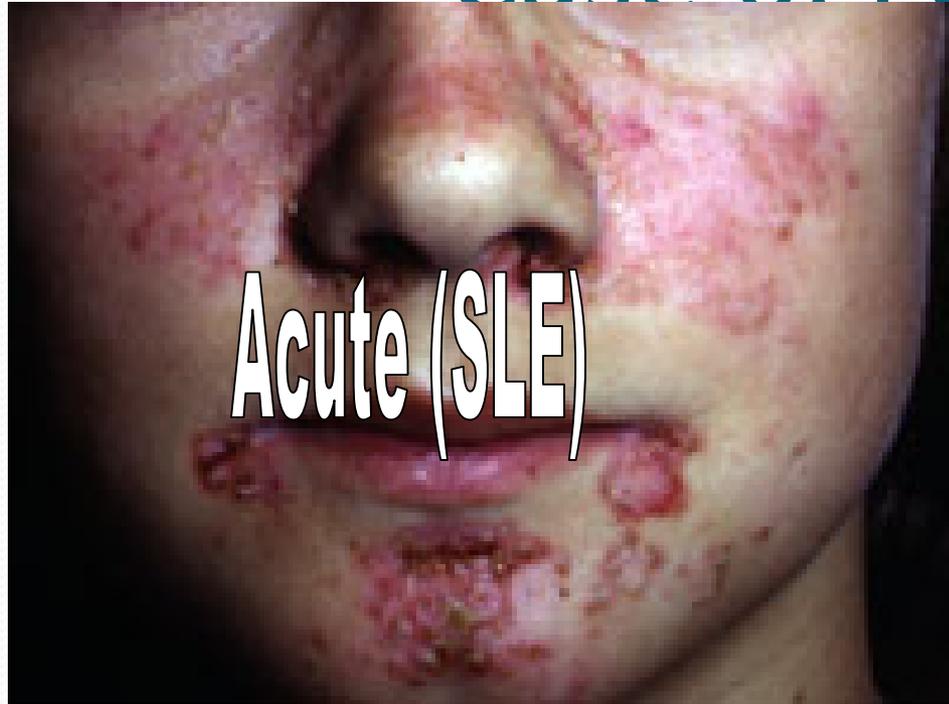
Case 5



Lues (Secondary Syphilis)

- Palms and soles involved
- Primary lesion: Chancre
- Secondary (in addition to rash)?
- Tertiary: **CONDYLOMA LATA** Neurosyphilis

Case 6: LUPUS



Acute (SLE)



Subacute (SCLE)

KNUCKLE
SPARING



Discoid (DLE)

Papulosquamous= 3P's, 3L's

- Psoriasis
- Parapsoriasis
- Pityriasis Rosea
- Lichen Planus
- Lues (Secondary Syphilis)
- Lupus
- AND

Fungal Infections

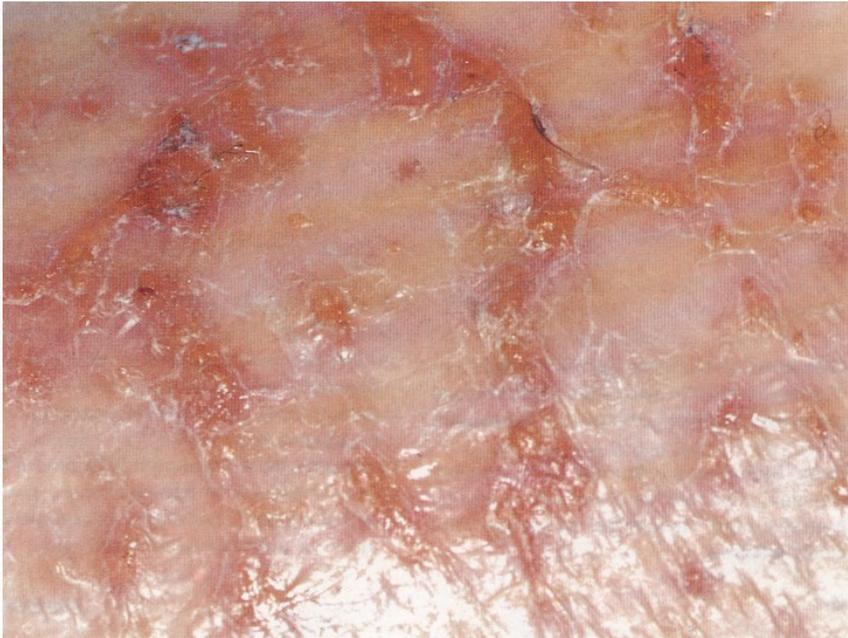


ECZEMATOUS DISEASES

Atopic Dermatitis



Asteatotic Dermatitis (Eczema Craquele)



Nummular Eczema



Se



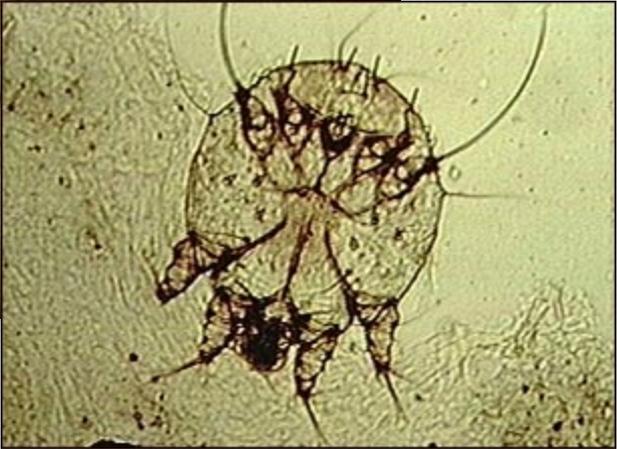
Contact Dermatitis



What kind of testing is this??
PATCH TESTING

Contact Dermatitis

- Allergic Contact
 - Nickel
 - Neomycin
 - Tape
- Irritant Contact
 - Lip-lickers
 - Dribble
 - Chemicals



Eczematous Diseases

- Atopic dermatitis
- Eczema craquelatum (asteatotic)
- Nummular eczema
- Seborrheic dermatitis
- Contact dermatitis
- Scabies