















5TH EMIRATES FAMILY MEDICINE SOCIETY CONGRESS



INTERCONTINENTAL DUBAI FESTIVAL CITY





Dermatology

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Lecture topics

- 1. Acne/Rosacea
- 2. Cancers
- 3. Papulosquamous eruptions

Dermatology terms

- Macule flat lesion < 1 cm
- Patch flat lesion > 1 cm
- Papule raised lesion < 0.5 1 cm
- Plaque raised lesion > 0.5 1 cm
- Vesicle fluid-filled blisters < 0.5 cm
- Bulla fluid-filled blisters > 0.5 cm
- Pustule pus-filled blisters

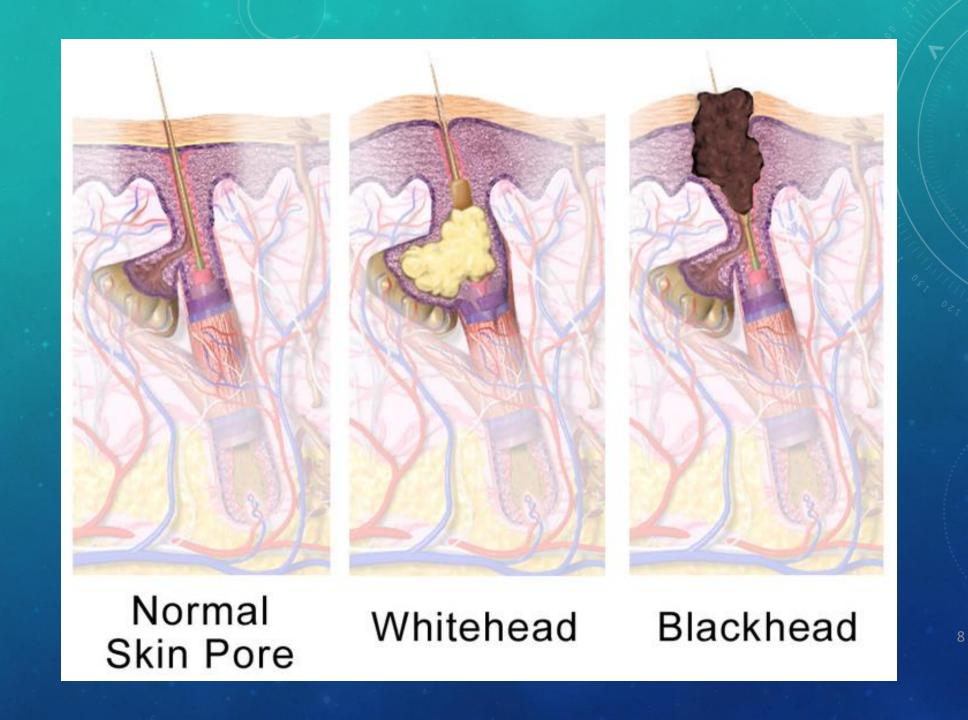
Get to the Noun

- "It's an erythematous, papular, excoriated, lichenified ..."
 THING
- Erythematous *papule*
- Lichenified plaque
- Getting to the noun gives a Ddx
- Papule → ...
- Vesicle → ...



Acne Vulgaris - Pathophysiology

- 1. Androgen-mediated stimulation of the sebaceous gland
- 2. Abnormal keratinization leading to follicular plugging comedo formation
- 3. Proliferation of Propionibacterium acnes within the follicle
- 4. Inflammation
- 5. Genetics, stress, and diet may also play a role



Acne Classification

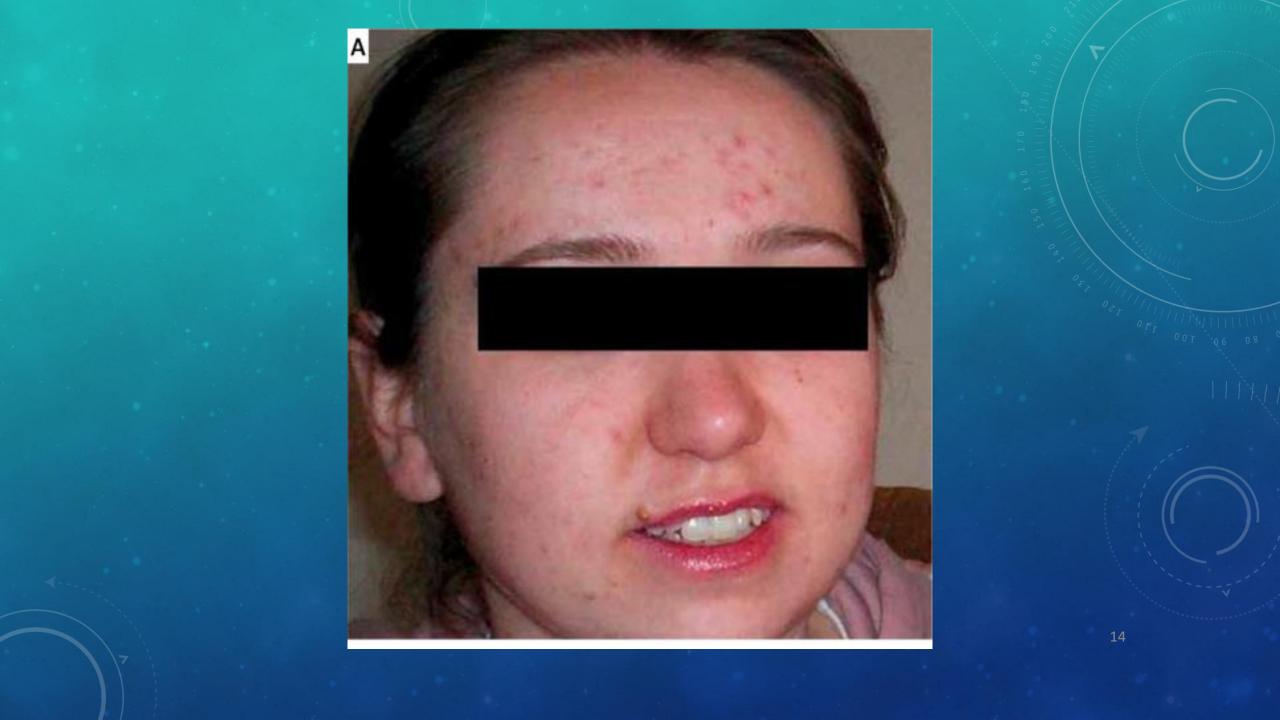
- Comedomal acne (no inflammation)
- Inflammatory acne (papules and pustules):
 - Mild to moderate severity
 - Moderate to Severe inflammatory acne
 - Severe Papulonodular Acne







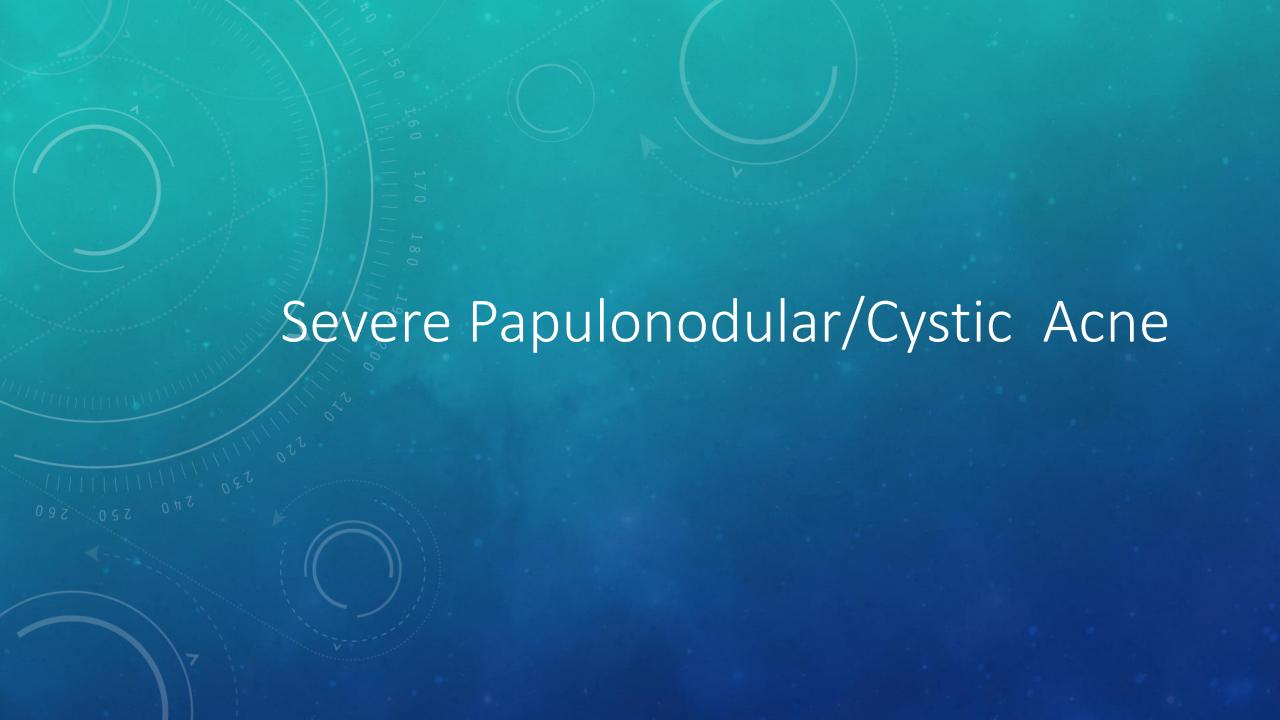
















A patient has mild comedomal acne. What is the best initial therapy for this condition?

- A. Topical tretinoin apply to affected area qHS
- B. Oral doxycycline 50 mg daily
- C. Benzoyl peroxide applied bid
- D. Isotretinoin for 12 weeks

Treatment – Comedomal Acne

- Topical retinoids are the mainstay of therapy
- Decrease formation of comedomes and reduce inflammation
 - Tretinoin: Retin-A, not isotretinoin/Accutane (\$40-68)
 - Adapalene (\$90)
 - Tazarotene (\$113)
- Treatment response of 40 70% within 12 weeks.
- Use a small pea-sized amount, apply the to affected areas at bedtime.

Benzoyl peroxide

- Over-the-counter
- Antimicrobial
- Does NOT induce resistance
- Consider using in addition with any long term topical or oral antibiotic

Treatment – Inflammatory Acne Mild to Moderate

- Topical antibiotics are the treatment of choice
 - Benzoyl peroxide
 - Azelaic acid: pregnancy category B (Azelex and Finacea)
 - Clindamycin
 - Erythromycin
 - Dual agents combining benzoyl peroxide with clindamycin or erythromycin
- Current recommendations suggest combining topical antibiotics with topical retinoids if tolerated by the patient.

Treatment – Inflammatory Acne Mild to Moderate

- Response to topical antibiotics
 - 30 to 80% improvement
 - 8 to 12 weeks of therapy

A 23 yo female presents with acne that you stage as moderate to severe inflammatory acne. There are no scars. What is the best therapy for this degree of acne?

- A. Topical retinoic acid to affected area at bedtime
- B. Isotretinoin daily for 20 weeks
- C. Benzoyl peroxide topically bid
- D. Doxycycline 50 mg daily

Treatment – Inflammatory Acne Moderate to Severe

- Oral antibiotics are first line therapy having both antimicrobial and antiinflammatory properties
 - Tetracyclines:
 - Tetracycline
 - Doxycycline (preferred over tetracycline)
 - Minocycline (preferred over tetracycline)
 - Erythromycin recommended less often secondary to resistant P. acnes
- Consider benzoyl peroxide to help reduce resistance

Treatment – Inflammatory Acne Moderate to Severe

- Response to oral antibiotics
 - 64% to 86%
 - 6 to 8 weeks of therapy

Treatment – Inflammatory Acne Moderate to Severe

- Doxycycline
 - 50 to 100 mg daily to bid
 - 20 mg per day has been studied and is effective
 - Side effects include GI upset, more chance at photosensitivity than TCN.
 - Doxycycline may be taken with food.
 - Do not use in children less than 8 years old

Treatment of Severe Papulonodular Acne

- Oral isotretinoin/Accutane is the drug of choice.
- It is used by itself except with women using oral contraceptives (OC).
- Dose is 1 mg/kg per day for 20 weeks or a total cumulative dose of 120 mg/kg.
- 80 to 90% success rate.

Isotretinoin

- It is a known teratogen, pregnancy category X
- Major malformations occur in 40% of infants exposed in the first trimester.
- Women need two negative pregnancy tests before commencing a course of therapy, and monthly thereafter
- Women need two forms of contraception during Rx.
- Women need to sign a consent form for treatment.
- Physicians currently need to be registered with iPLEDGE to prescribe.

Women with acne

- For women with acne who desire birth control, oral contraceptives (OCs) are an excellent choice.
- OCs approved for acne in the USA include:
 - Orthotricyclin
 - Estrostep
 - Yaz
 - Others-35 ©
- Expected improvement from OCs alone is 40-70%.

Acne - Treatment Summary

- Comedomal acne
 - Topical retinoids
- Mild to moderate acne
 - Topical retinoids with topical antibiotics/benzoyl peroxide
- Moderate to severe acne
 - Topical retinoids with oral antibiotics/benzoyl peroxide
- Papulonodular/scarring acne
 - Isotretinoin
- Maintenance
 - Topical retinoids +/- benzoyl peroxide +/- topical antibiotic



Rosacea

- Chronic facial skin condition of unknown cause
- Location Central face
 - Transient or persistent erythema, flushing, warmth
 - Telangiectasia
 - Inflammatory papules and pustules
 - Hyperplasia (thickening) of connective tissue





Treatment

- Avoid triggers
- Mild cleansers, moisturizers, photoprotection with hats and SPF 30 sunscreens

Treatment

- Topical metronidazole
- Azelaic acid
- Brimonide, topical alpha-blocker to reduce erythema
- Oral doxycycline 20 mg bid and higher
- Phymatous Rx Laser, light-based therapies
- Ocular sx lid hygiene, topical cyclosporine, Abx



Atopic Dermatitis

- Chronic pruritic skin condition, flexural creases, lichenification over time
- "The scratch that itches"
- Onset usually before 2 years of age
- Only 10% diagnosed after age 5
- 30% of children with atopy develop asthma

Berke R, Singh A, Guralnick M. Atopic Dermatiis: An Overview. AFP. 2012;86(1):35-42



Atopic Dermatitis

- Regular use of emollients after bathing
 - Wet wrap therapy for recalcitrant disease
- Topical steroids are main treatment
- Calcineurin inhibitors are second line
 - Tacrolimus (\$34) and pimecrolimus (\$97)
 - Black box warning skin cancers and lymphoma

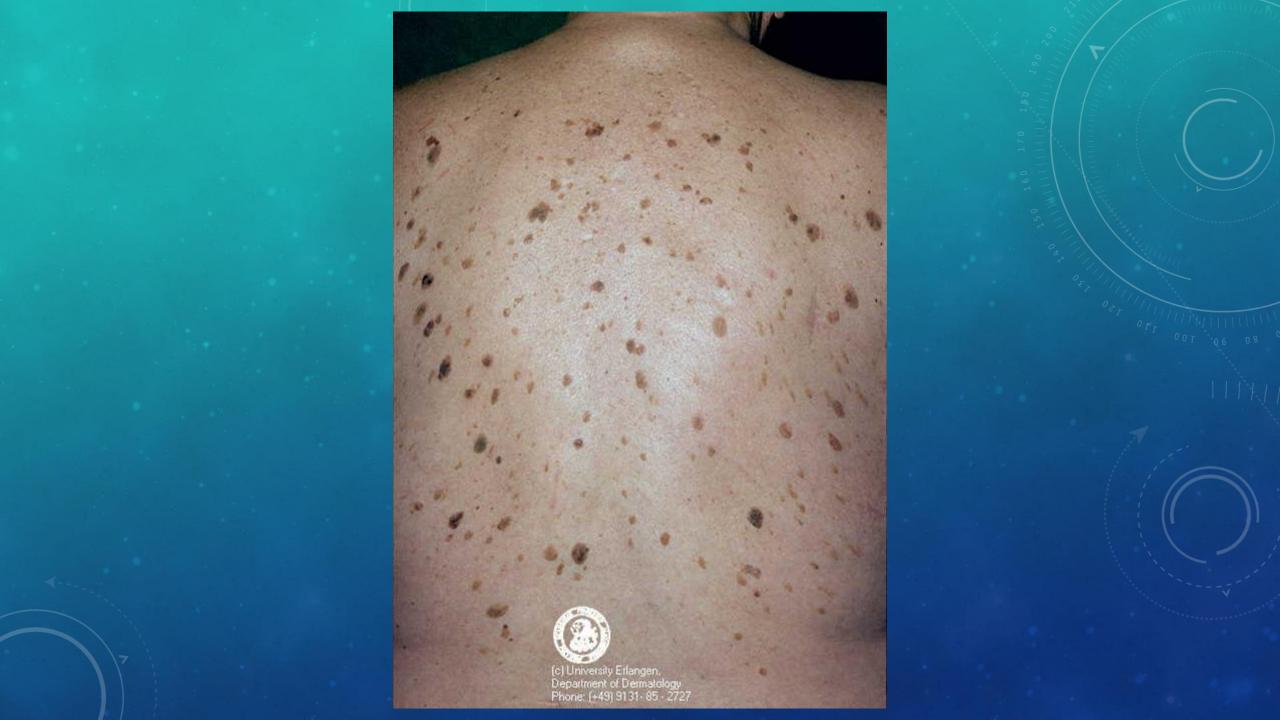
What type of eczema is this?



Nummular eczema

Doctor, these bumps have been growing on me for the past 5 years and I'm tired of them.

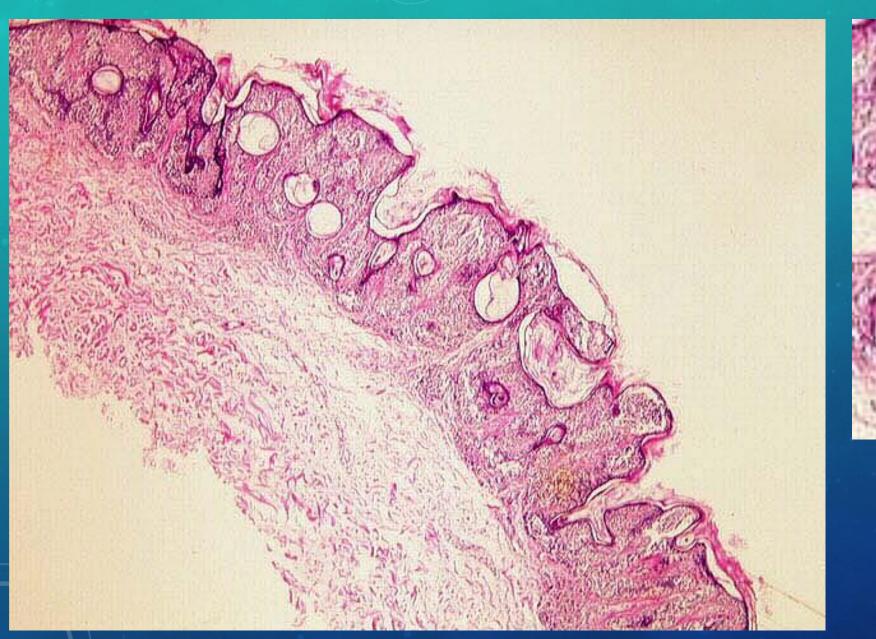






Seborrheic Keratosis









Seborrheic Keratosis

- Waxy surfaced
- "Stuck on" appearing
- Slow growing
- Can excise/freeze/curette
- They are benign

Differential Dx?

- Seborrheic Keratosis
- Compound/dermal nevus
- Granuloma annulare
- Basal cell cancer
- Melanoma
- Other tumor





Melanoma

Tiger Cowries









These skin lesions are examples of:

- A. Lipoma
- B. Neurofibroma
- C. Dermatofibroma
- D. Seborrheic keratosis



Diagnostic clues

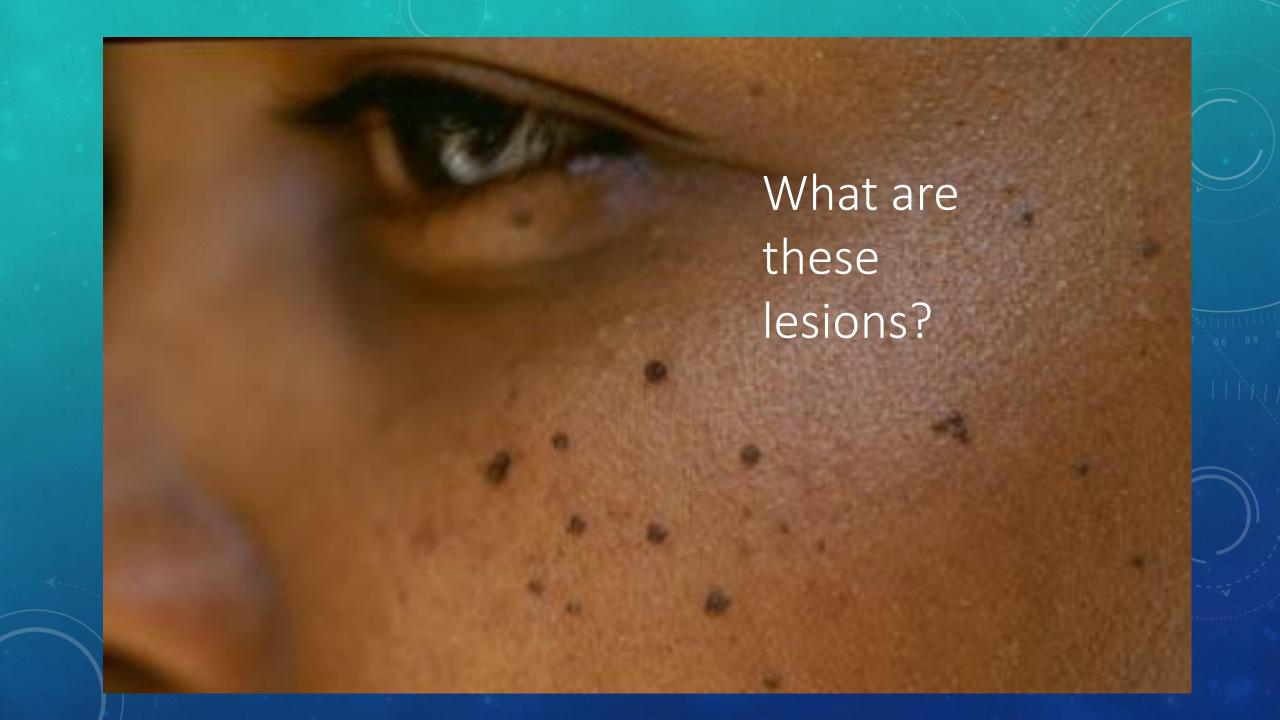
- Positive dimple sign
 - When the tumor is gently squeezed from the sides, it dimples down below the skin
 - Like an iceberg, the majority of the tumor is below the level of the skin
- Commonly occurs on the legs, especially in women
- Usual pigmentation is darker than surrounding skin

Treatment for dermatofibroma

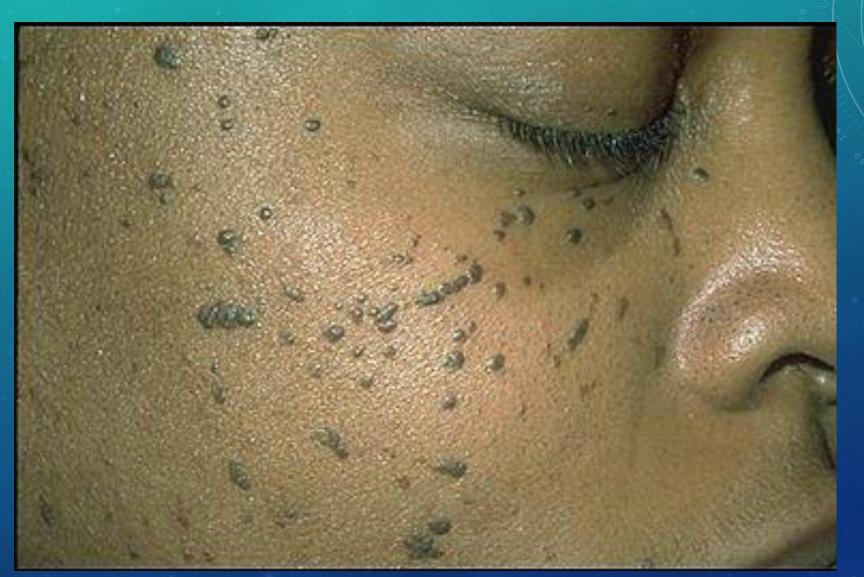
- Aggressive reassurance
- Excisional biopsy if the lesion is irritating or concerning.

Golden Cowry





Dermatosis papulosa nigra



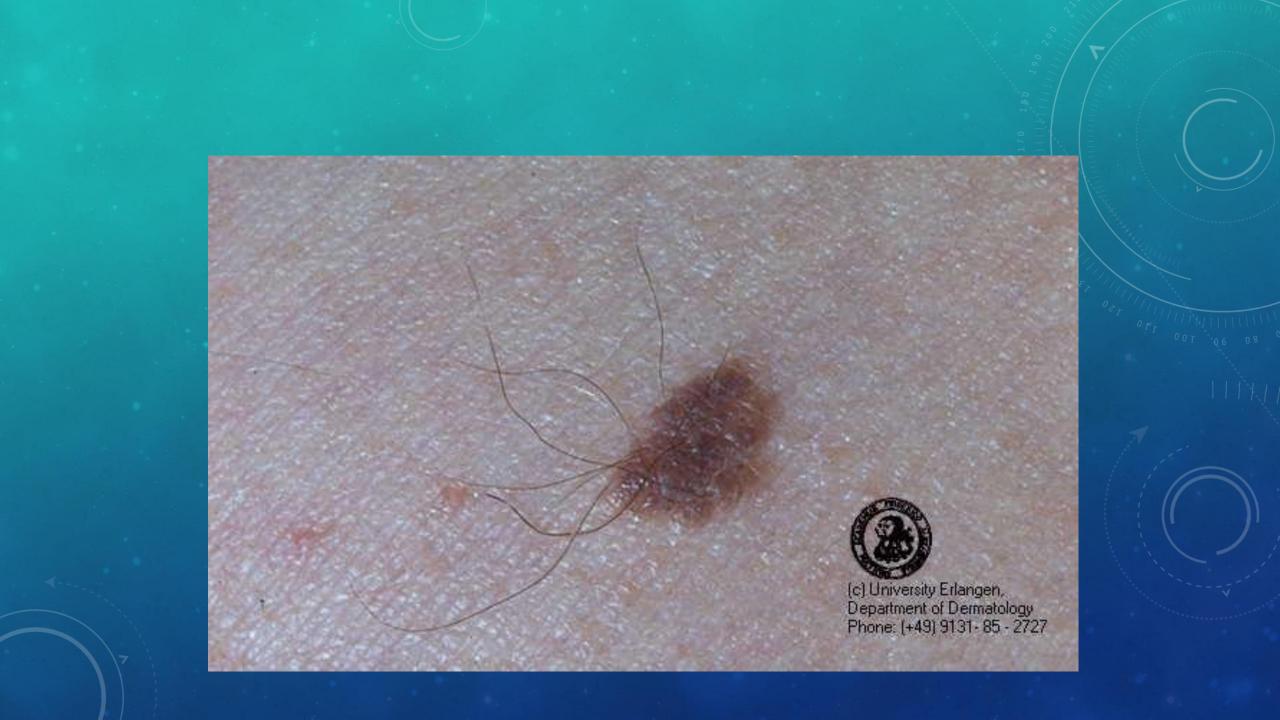
Dermatosis Papulosa Nigra Treatment

- Aggressive reassurance
- Can excise PRN
- I use a pair of sharp scissors and pickups without anesthesia to cut these off.
- The anesthesia hurts more than the scissors do.
- If using liquid nitrogen, be aware of potential post-procedural hypo-/hyperpigmention.

Tortoise cowry





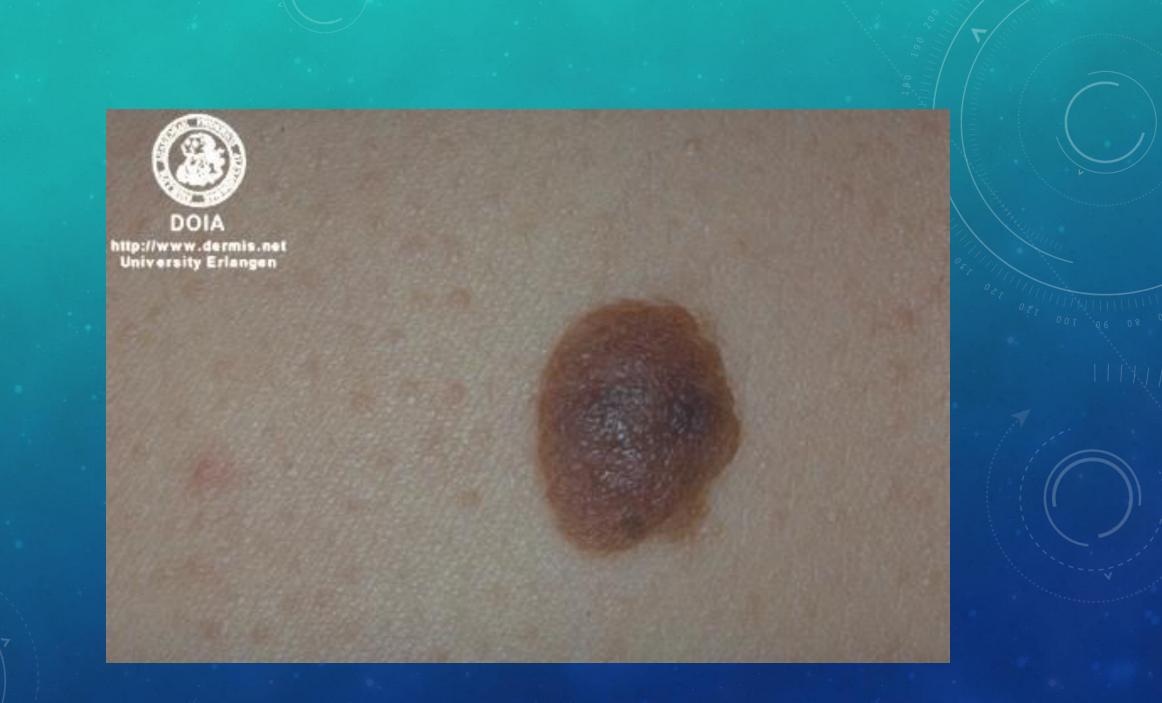












Well, doctors, what are these bumps? Remember, these have pigment

- Nevi aka "moles"
- Cancers: melanoma, BCC, SCC?
- Dermatofibroma
- SK, seborrheic keratosis
- Others
- If in doubt, consider biopsy

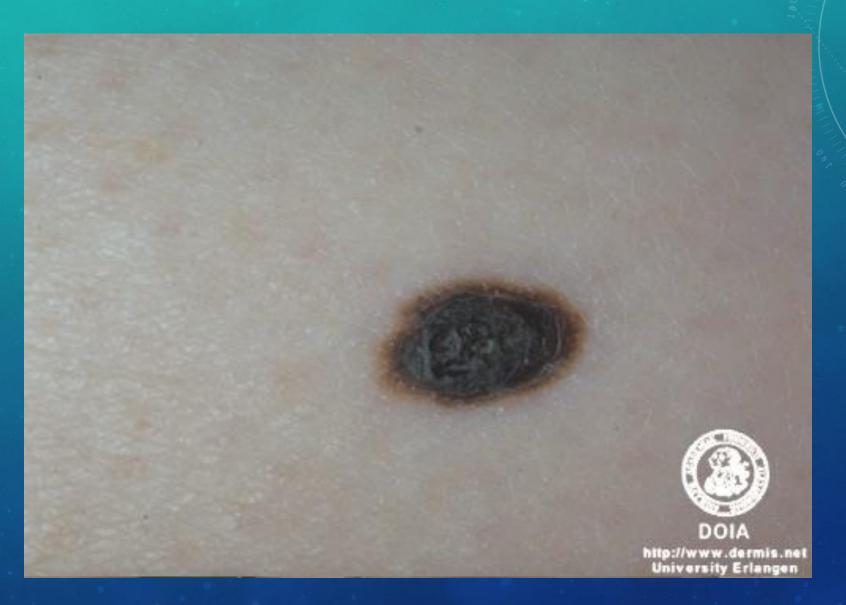
Nevi – three types

- Junctional cells are at the dermoepidermal junction above the basement membrane. Flat lesions.
- Compound cells are both above the basement membrane and in the dermis. Slightly raised lesions.
- Dermal cells are only in the dermis. Raised lesions.

Junctional nevus



Junctional Nevus



Compound Nevus



Dermal Nevus

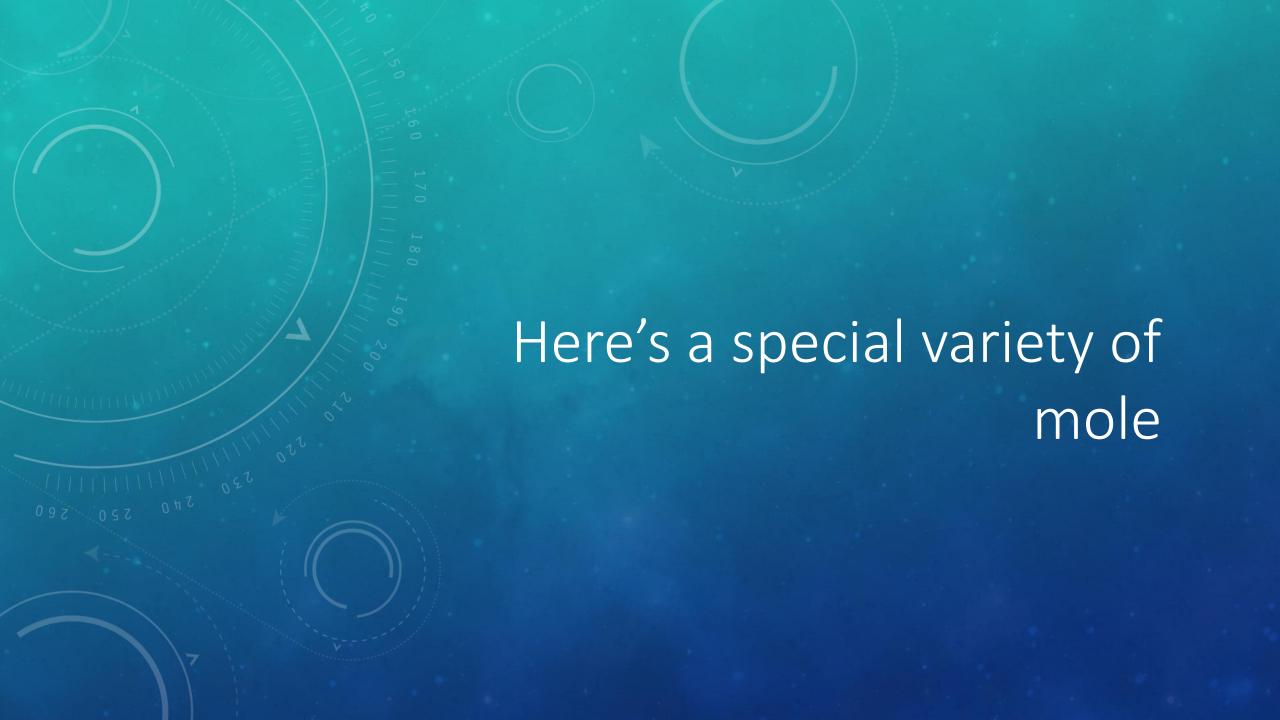


Dermal nevus



The dreaded black hole belly-button nevus



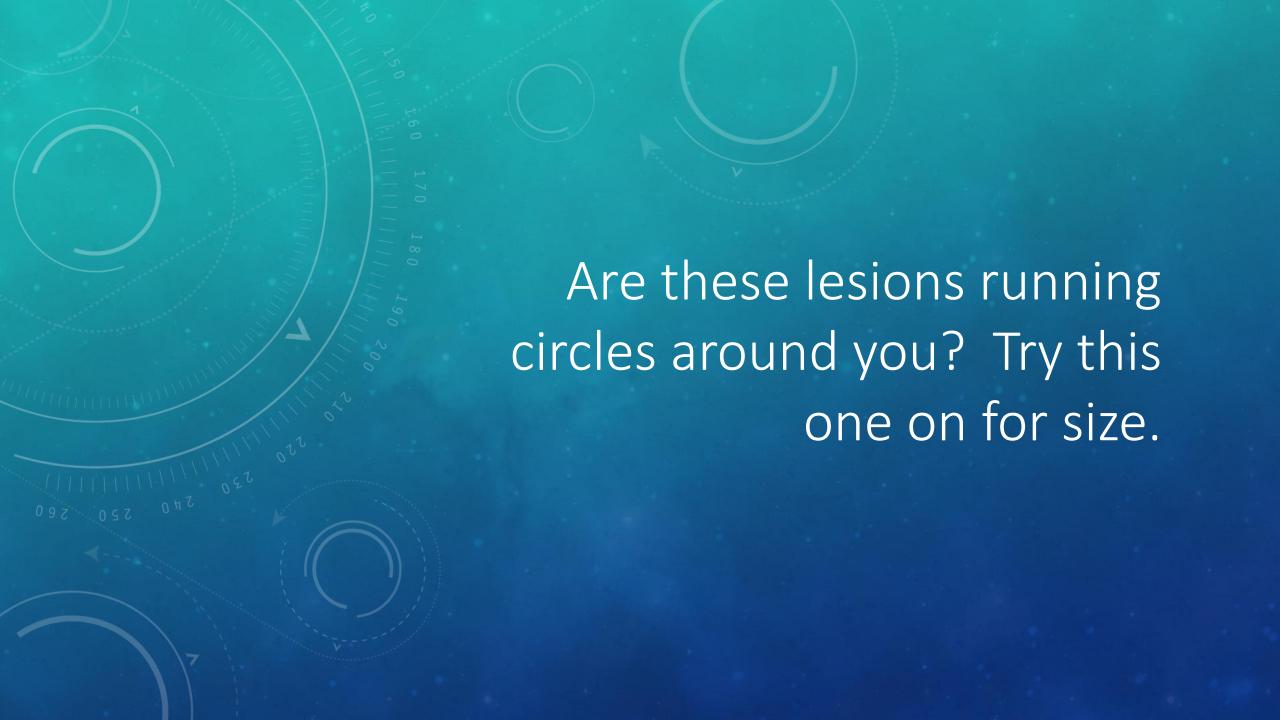




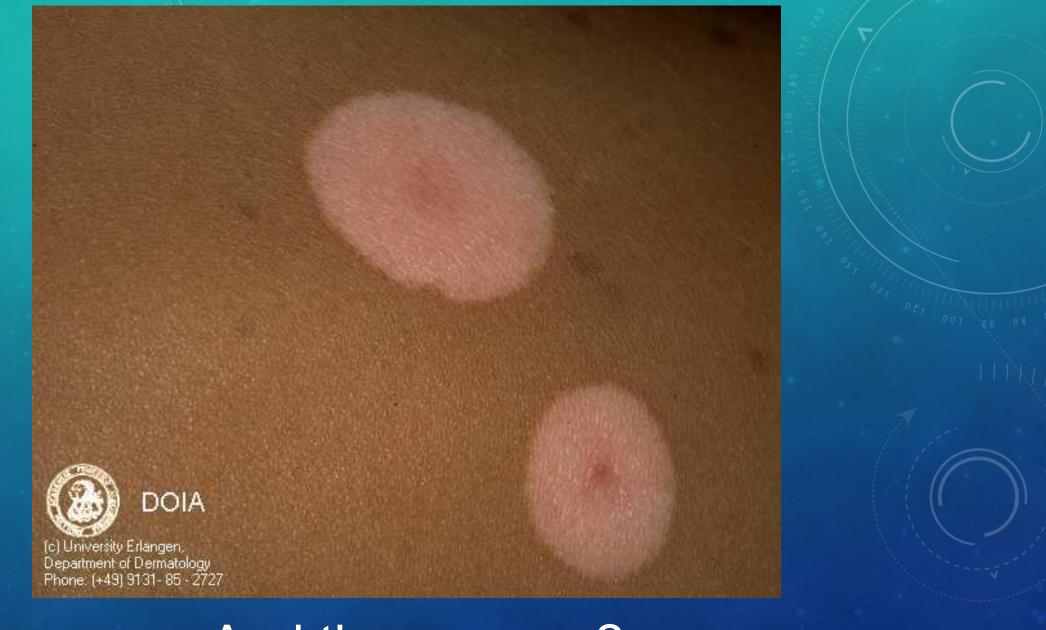




Blue Nevus







And these are...?

Halo nevus







And this is ...?



Nevus Spilus







(Linear) Epidermal Nevus



What are these common splotches called? Ephelides ... AKA Freckles



Asellus cowrie





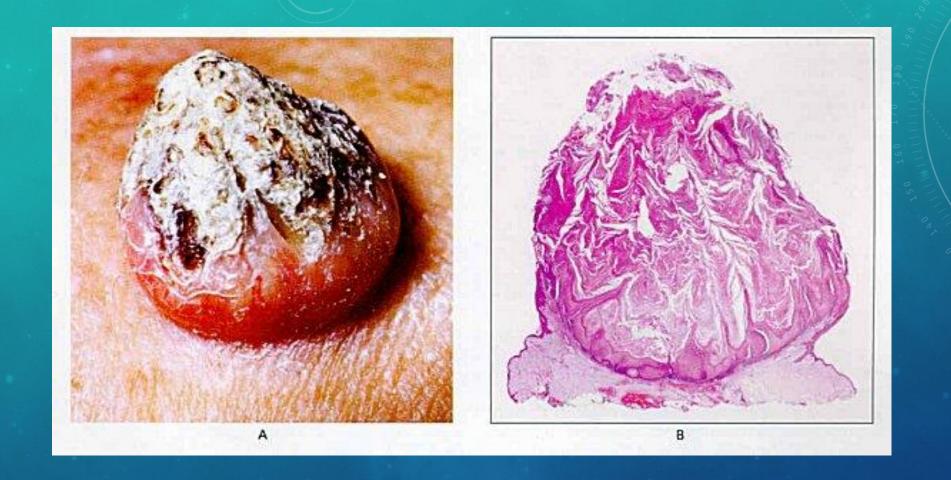
Hx: Appearance over 6-7 weeks

Normal skin previous









Looks like a volcano, doesn't it? So what could it be?

This lesion is most consistent with:

- A. Keratoacanthoma
- B. Basal cell cancer
- C. Melanoma
- D. Pyogenic granuloma



Diagnostic clues

- Rapid appearance over 6-8 weeks
- Central keratin core, like a volcano
- Usually appear in sun exposed areas
- More common in men

Treatment of keratoacanthoma

- KA is now classified as a type of squamous cell carcinoma: SCC-KA type
- Excise completely with 4-5 mm margins
- The history is key to making the diagnosis in that these lesions appear rapidly; they are not slow growing.

Here's a "horny" critter





Cutaneous horn



Cutaneous Horn

• Sharply excise these and send them for pathology to check for squamous cell cancer at the base.

66 yo male with a large mass on his right shoulder for months/ years? What is the most likely diagnosis?

- A. Smoldering abscess
- B. Basal cell cancer
- C. Squamous cell cancer
- D. Infected lipoma







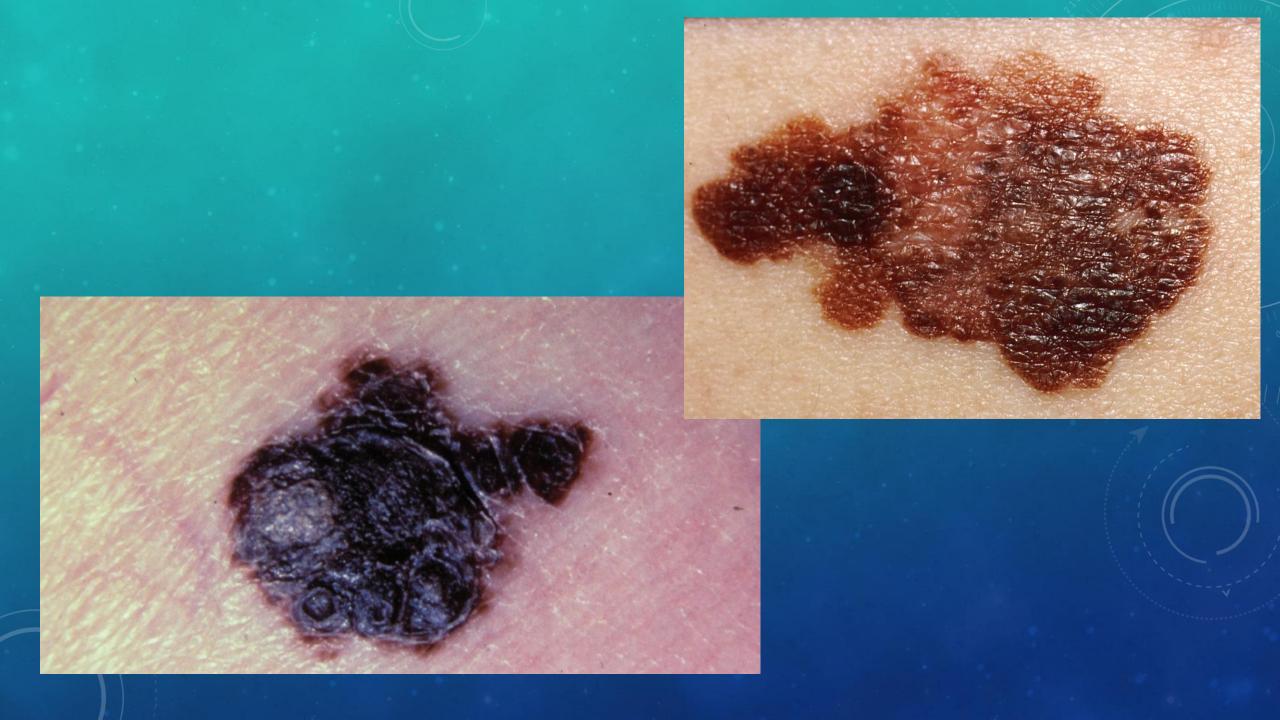
65 yo female with lesion below her left eye for 2

years. What is the most likely diagnosis?

- A. Basal cell cancer
- B. Squamous cell cancer
- C. Amelanotic melanoma
- D. Seborrheic keratosis in evolution







Melanoma ABCDEs

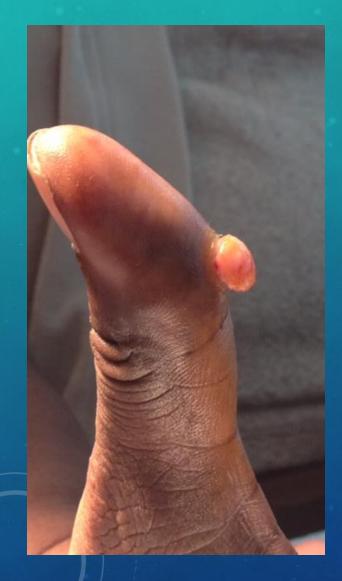
- Asymmetry
- Border irregularity
- Color variegation (different colors)
- Diameter > 6 mm the diameter of a pencil eraser
- Evolution changing lesion



Sieve cowry



Pyogenic granuloma





Pyogenic granuloma

- Short time to appear
- Often recedes spontaneously
- Mucus membranes oral and vaginal
- If bothersome of diagnosis unclear, excisional biopsy





Umbilical granuloma

- Treat conservatively
- May use silver nitrate sticks prn
- Rarely, a suture may be tied at the stalk or the lesion excised

Deer cowrie















These are examples of:

- A. Seborrheic dermatitis
- B. Inverse psoriasis
- C. Candidal intertrigo
- D. Cutaneous T cell lymphoma (mycosis fungoides)





Psoriasis treatment

- Consider dermatology consult
- High potency topical steroids: group 1 often needed
- PUVA, UVB and tar
- Immunomodulators
 - (e.g., methotrexate, cyclosporine)
 - Biologic agents
 - TNF alpha inhibitors: etanercept, infliximab
 - Monoclonal Abs: against interleukins or TNF-α

Psoriasis - systemic effects

- Psoriatic arthritis, classically at the sacro-ileac joint
 - Seronegative spondyloarthritis
 - Negative for Rheumatoid factor = sero(-)
- Cup in saucer deformity of distal finger tufts
- Digit swelling, dactylitis













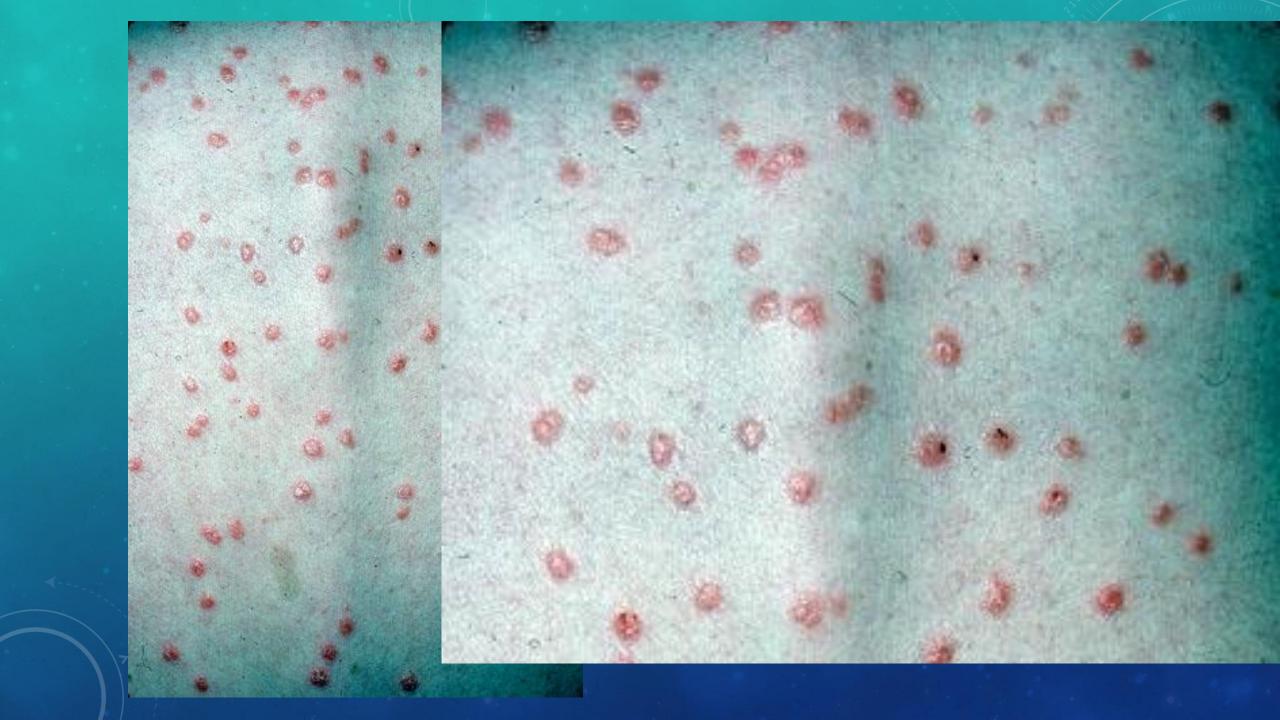
Patient with sore throat last week and now with a diffuse rash.

- A. Generalized lichen planus
- B. Guttate psoriasis
- C. Varicella (chicken pox)
- D. Pityriasis Rosea









Guttate psoriasis – diagnostic clues

- GP spares the palms and soles (vs secondary syphilis)
- Guttate pattern is classic
 - Water droplets sprinkled on skin
- Central scale

Guttate Psoriasis

- GP is strongly associated with a preceding or concurrent GABS infection.
 - 70-80% patients
- Immune reaction to infection.
- A genetic predisposition plays an important role

Telfer NR, Chalmers RJ, Whale K, et al. The role of streptococcal infection in the initiation of guttate psoriasis. Arch Dermatol. 1992;128(1):39

Guttate Psoriasis - treatment

- Reassurance and emollients
- Topical steroids
- UVB phototherapy
- Systemic agents are rarely necessary
- Empiric treatment for streptococcal infection and tonsillectomy for recurrent attacks

Flamingo tongue





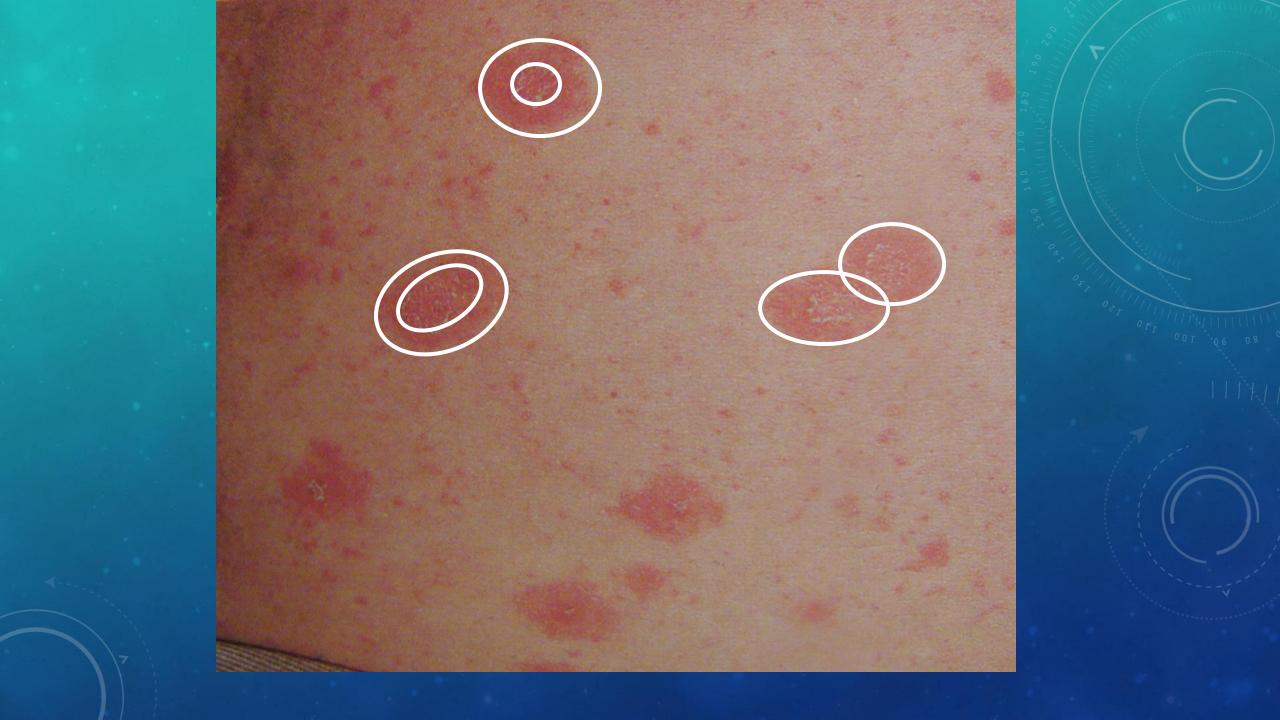




What eruption might this be?

- A. Erythema marginatum
- B. Secondary syphilis
- C. Nummular eczema
- D. Pityriasis rosea







Pityriasis Rosea

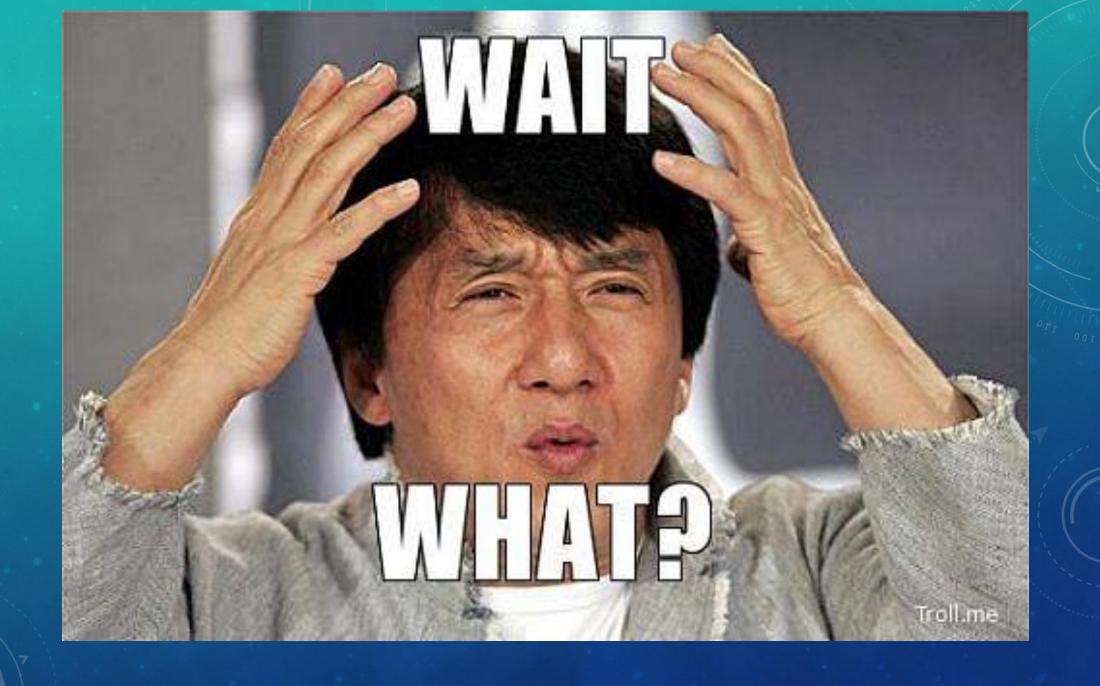
- Papulosquamous eruption of undetermined cause
- May have a herald patch initially
- Oval papules and plaques
- Collarette of scale
- Lesions follow Langer's lines
 - Christmas tree pattern on the back





Etiologies

- Purported viral etiology
- Some recent data has suggested Human herpes virus (HHV) 7



Human Herpes viridae

- HSV 1 and 2: Oral and genital herpes
- HHV 3: Varicella-Zoster
- HHV 4: Ebstein-Barr
- HHV 5: Cytomegalovirus
- HHV 6: Roseola
- HHV 7: virus in search of a disease ... PR?
- HHV 8: Kaposi's sarcoma

Pityriasis Rosea - Treatment

- Aggressive Reassurance
 - This will go away ©
- Medications:
 - Antihistamines
 - Topical steroids
 - Systemic steroids
- Usually resolves in 1-2 months. The pigmentary changes may take longer to resolve.

Antibiotics for PR

- Early data suggestive of potential benefit from erythromycin
- Data for newer macrolides, azithromycin and clarithromycin, not supportive of benefit
- Recent data using acyclovir suggests benefit

Acyclovir

- Randomized trial of 64 patients with PR Rx'd with 400mg 5xdaily for 1 week
 - At two weeks, erythema reduced in 79% treated vs 27% in untreated patients
 - At four weeks, erythema reduced 93% reduction vs 61% in untreated patients
 - Difference no longer significant at four weeks
- Second trial 38 patients treated with 800mg 5xdaily for 1 week vs 30 patients treated with vitamin C (no placebo)
 - At one week, erythema was reduced 53% in treated vs 10% in untreated patients
 - At two weeks, erythema was reduced 87% in treated vs 33% in untreated patients

Rassai S, Feily A, Sina N et al. Low dose of acyclovir may be an effective treatment against pityriasis rosea: a random investigator-blind clinical trial on 64 patients. J Eur Acad Dermatol Venereol. 2011;25(1):24

Ganguly S. A Randomized, Double-blind, Placebo-Controlled Study of Efficacy of Oral Acyclovir in the Treatment of Pityriasis Rosea. J Clin Diagn Res. 2014 May;8(5):YC01-4. Epub 2014 May 15



Herald patch















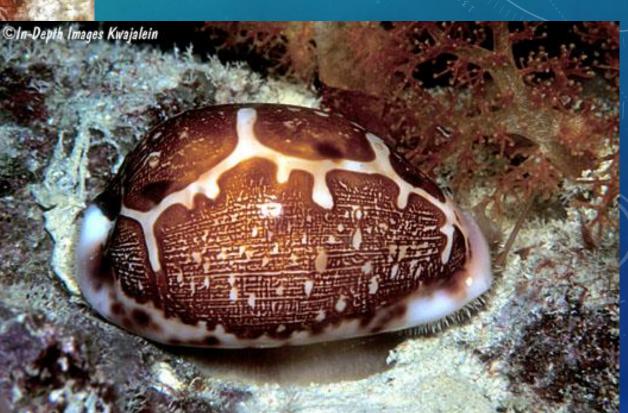








Map Cowrie













What is the most likely diagnosis for this itchy rash on

the volar aspect of the wrists?

- A. Lichen planus
- B. Secondary syphilis
- C. Granuloma annulare
- D. Rocky Mountain spotted fever







Wickham's Striae – skin and oral



Wickham's Striae







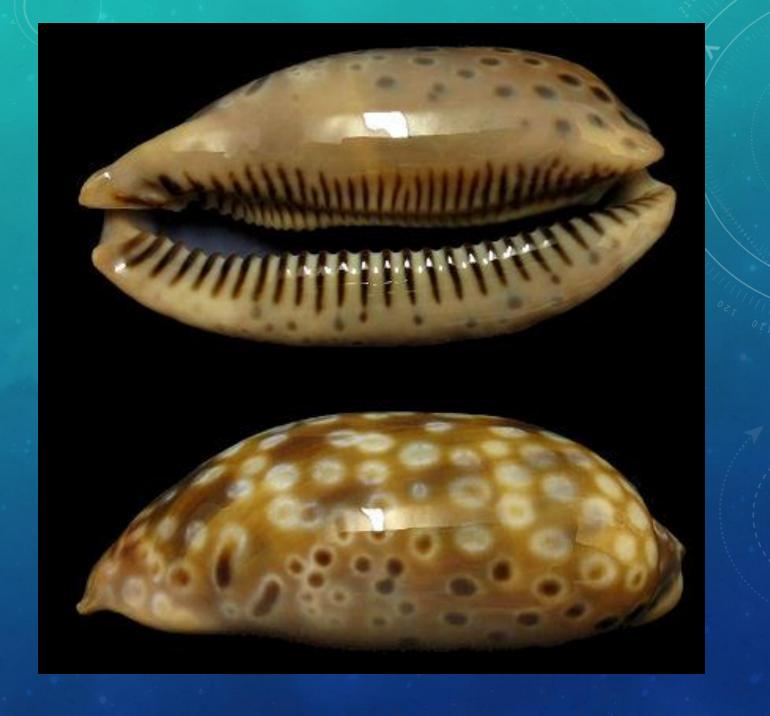
Lichen Planus

- Purple
- Pruritic
- Polygonal
- Planar
- Papules and plaques
- It's not PUPP (pruritic urticarial papules and plaques of pregnancy)

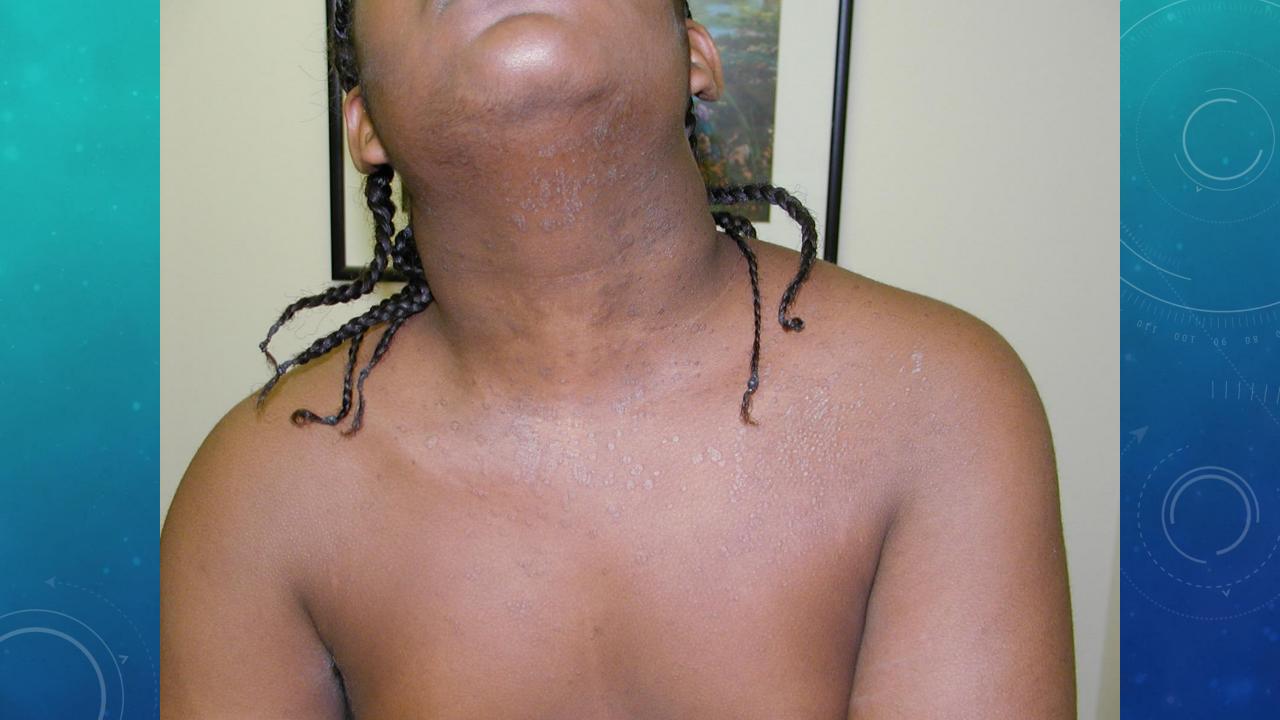
Lichen Planus Treatment

- Topical steroids, high potency initially
- Intralesional steroids
- Antihistamines
- PUVA for generalized LP
- Kenalog in orabase for oral lesions on buccal mucosa (Wickham's striae)

Zebra or Measled cowrie



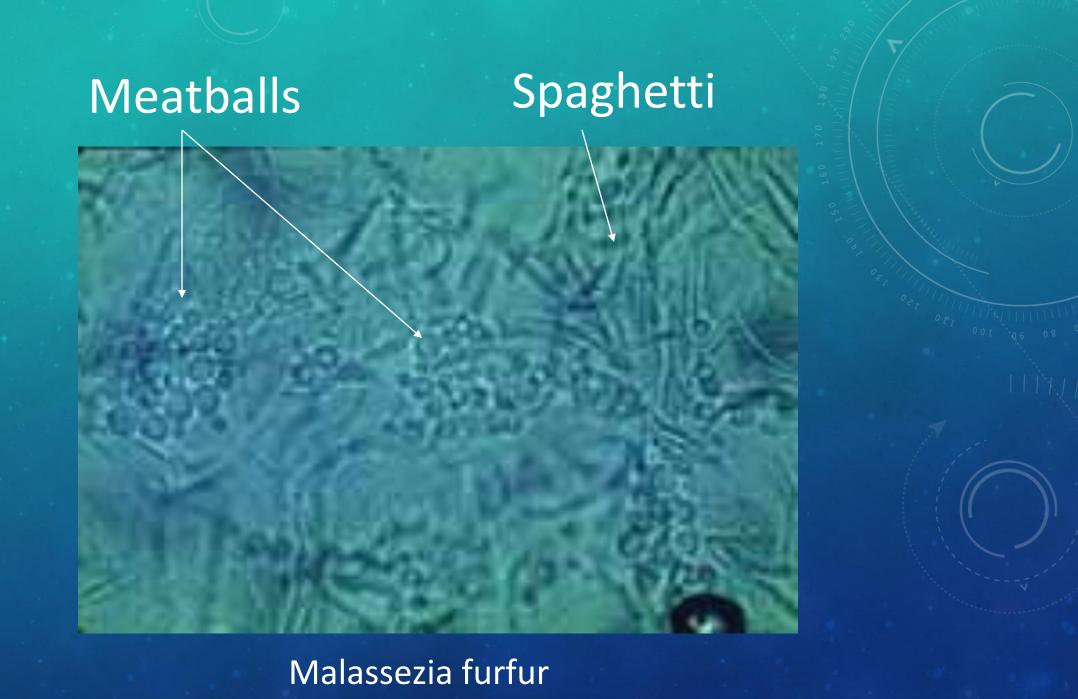












Tinea Versicolor - treatment

- Topical antifungals 70-80% cure rate
 - Apply for 2 weeks
- Oral antifungals
 - Ketoconazole 200-400mg daily for 5 days
 - 90-95% cure rate at 4 weeks
 - Single dose fluconazole 150mg
 - Single dose itraconazole 400mg
- Ketoconazole 2% shampoo
 - Wash daily single application or three days worth



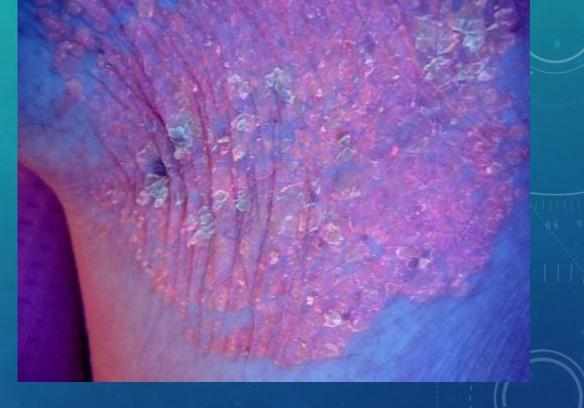


Tinea cruris

- Treat with topical or oral antifungals.
 - Clotrimazole 1% cream bid for 2-4 weeks
 - Econazole 1% cream qday x 2 weeks
 - Ketoconazole 2% crm qday x 2 weeks
 - Nystatin topical bid x 2 weeks
 - Many others: terbinafine, tolnaftate, ciclopirox, miconazole
 - For historical purposes: gentian violet
- May combine with a steroid
- Do not use steroid alone will worse fungal skin infections







Erythrasma

Erythrasma

- Classically, this is the "resistant tinea infection."
- If suspicious, use a Wood's lamp to exam
- Caused by Corynebacterium minutissimum
- Treated with topical clindamycin or erythromycin for two weeks, or with oral clarithromycin or erythromycin oral for two weeks

Zigzag cowry







Acrochordon (A.k.a. Skin tag)







This skin eruption is most consistent with:

- A. Erythema migrans
- B. Erythema multiforme
- C. Rocky Mountain spotted fever
- D. Bullous tinea corporis





Erythema multiforme

- Associated with herpes simplex, mycoplasma pneumonia, and drug hypersensitivity.
- Typical target lesions.
- Usually spares oral mucosa versus Stevens-Johnson syndrome or the more severe toxic epidermal necrolysis
- Treatment
 - Remove any causative agents/drugs
 - Antihistamines
 - Topical and systemic steroids
 - Antivirals





