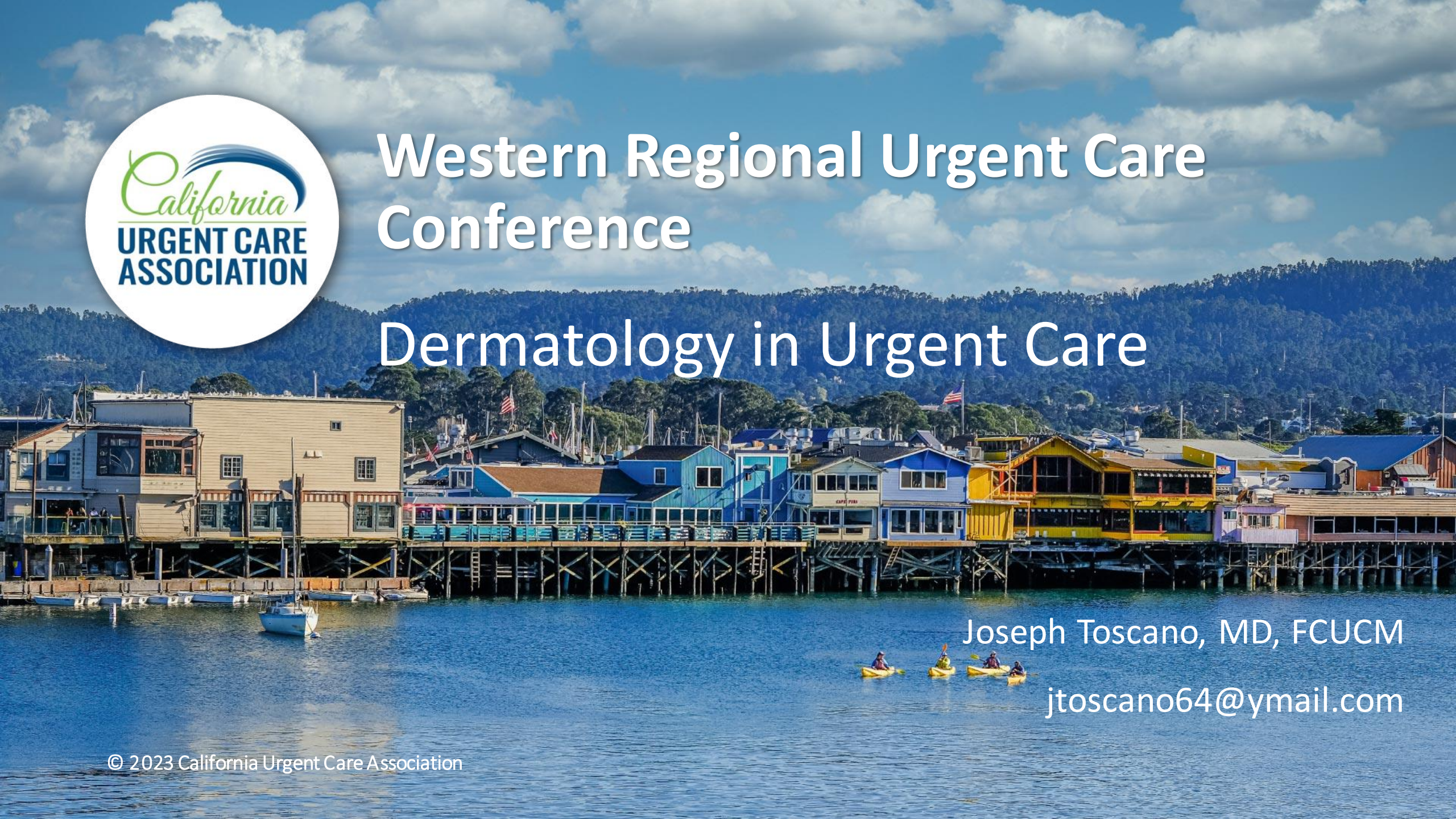
Western Regional Urgent Care Conference

Dermatology in Urgent Care



Western Regional Urgent Care Conference

Dermatology in Urgent Care

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Learning objectives

- Identify common rashes seen in Urgent Care based on pattern-recognition
- Discuss treatment for the rashes commonly seen in Urgent Care
- Recognize skin findings which accompany serious or life-threatening illness requiring urgent referral
- Describe a strategy for diagnosing “unknown” rashes

Skin in a nutshell

Largest organ of the body

Barrier and a "Window"

Indirect (inside-out rash) and direct (outside-in)

- Inflammation
- Immune/allergic
- Infection/infestation
- Neoplasia
- Trauma – sun/UV, heat, cold, mechanical trauma

Dermatology challenges

- Very few diagnostic tests
- Clinical diagnosis
- Pattern-recognition requires experience/practice/repetition
- Time-course of disease
- “Uncommon presentations of common diseases are more common than uncommon diseases”

Pattern recognition

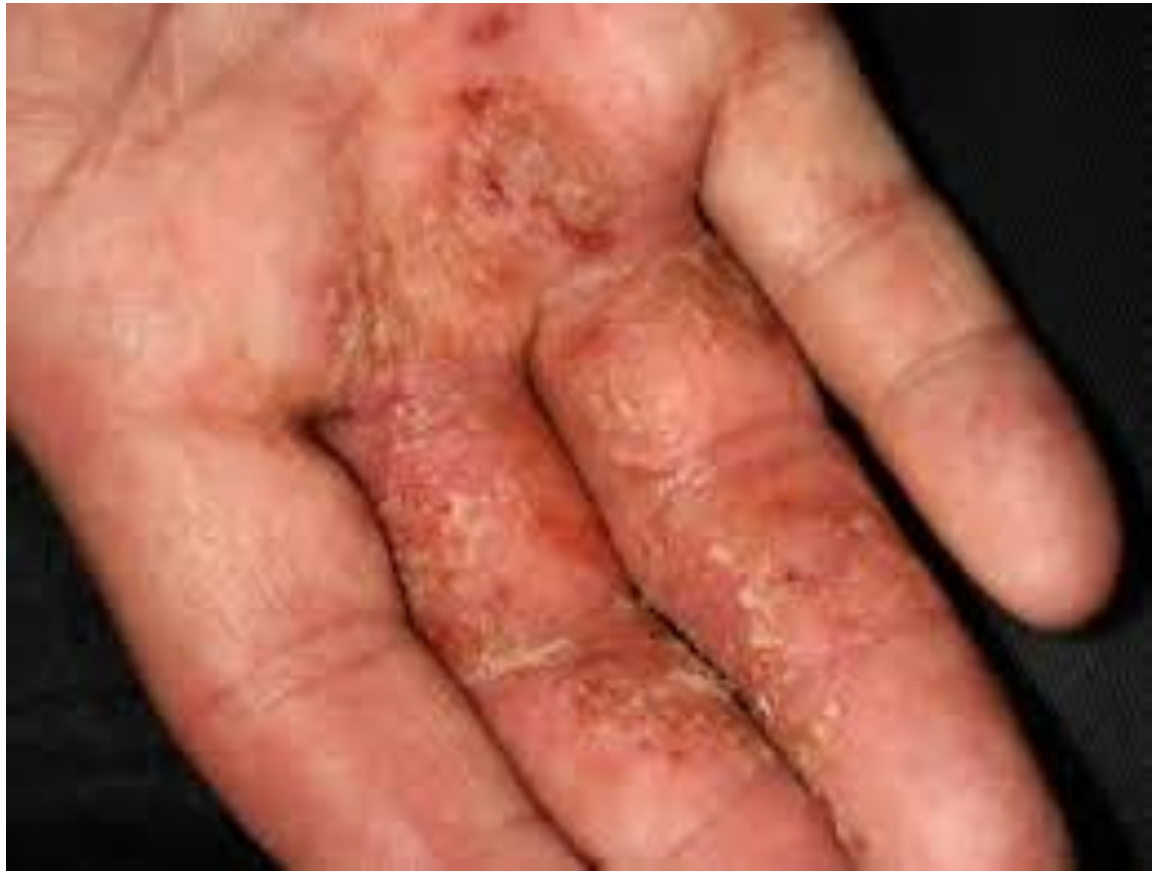
Special thanks!!!

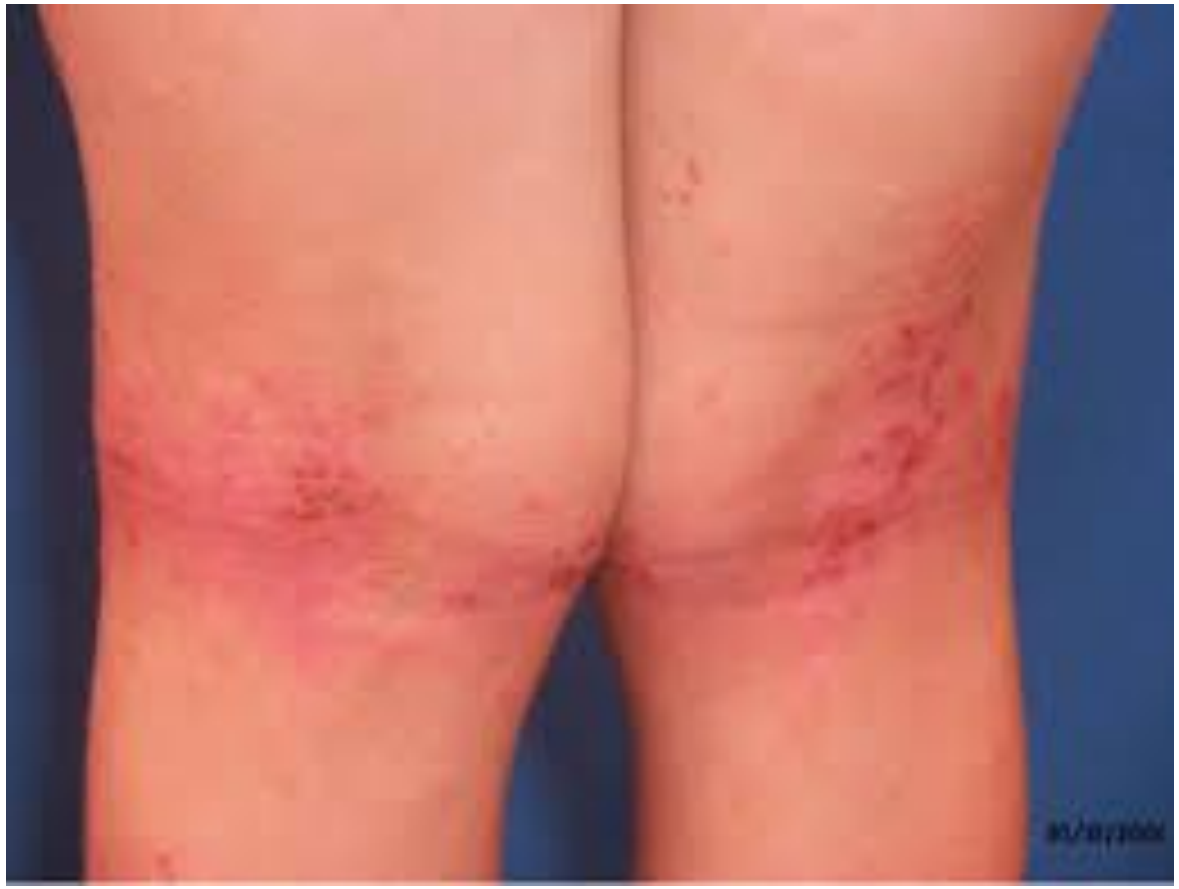
Dermnet

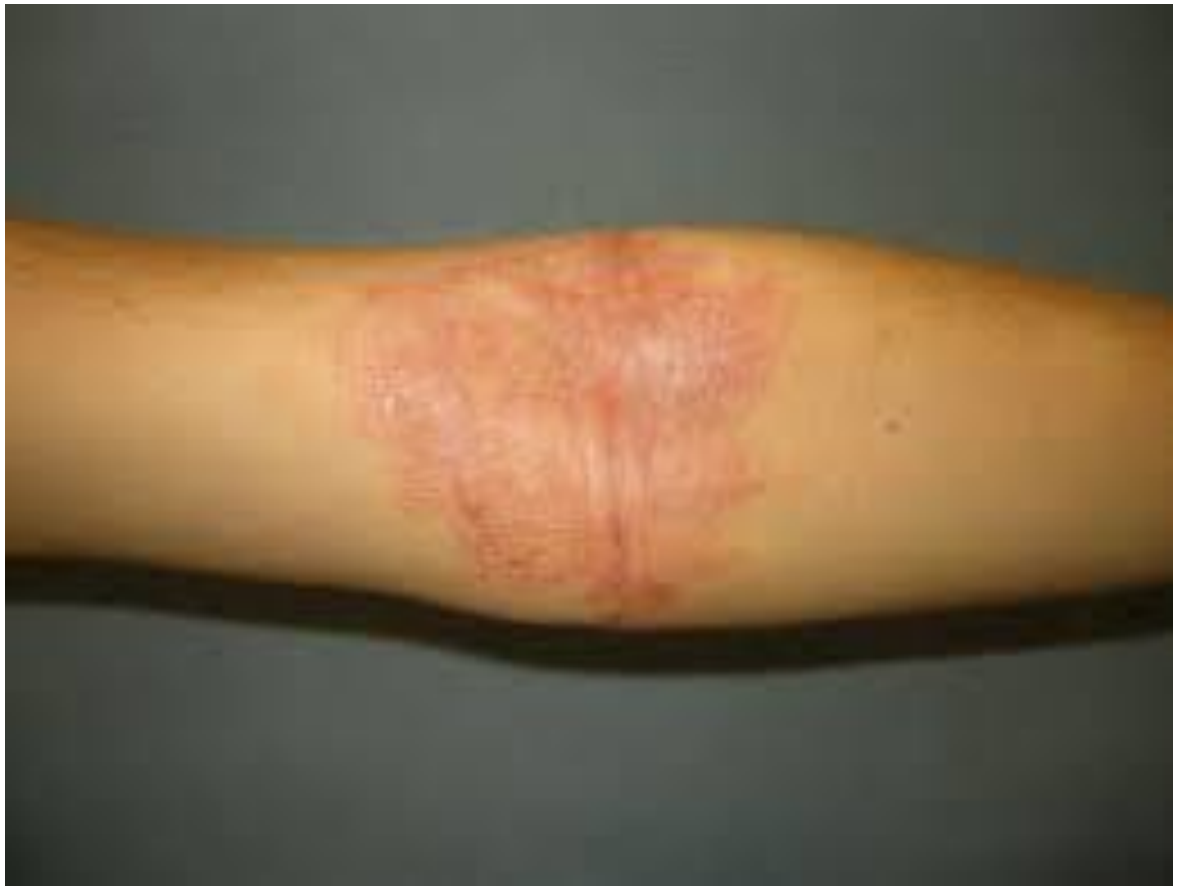
https://dermnetnz.org

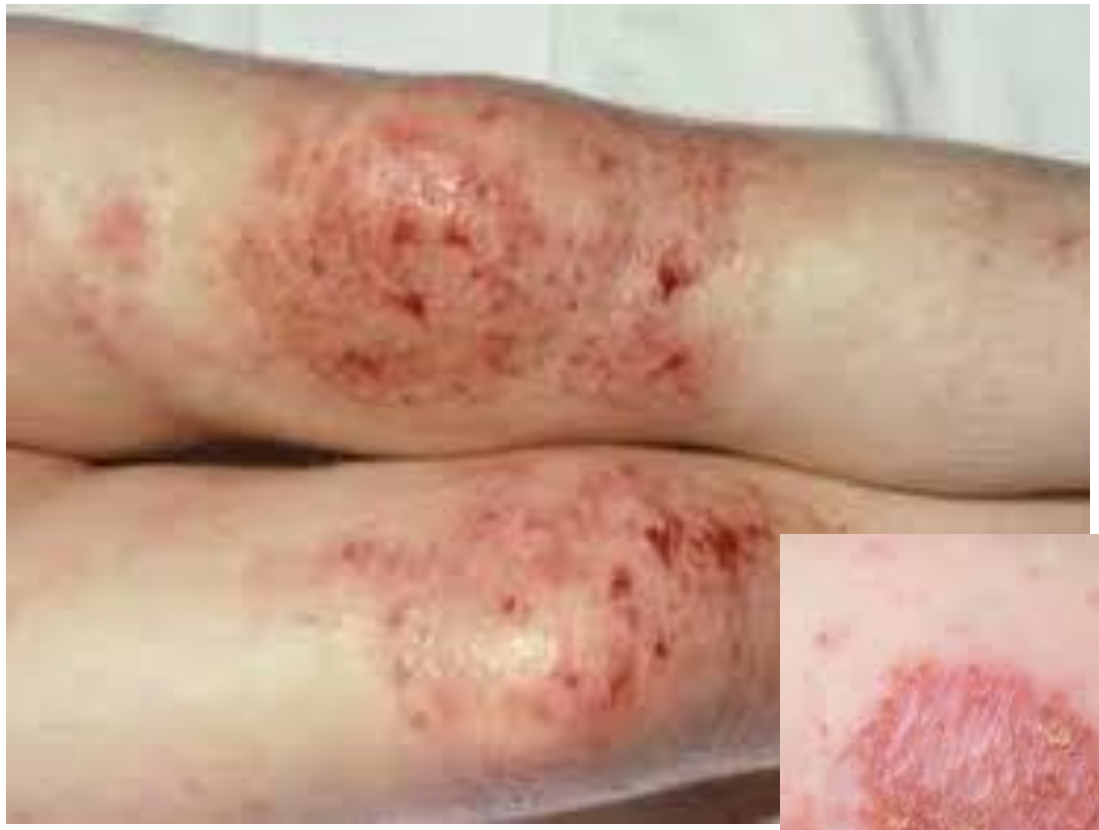
Wikipedia Commons

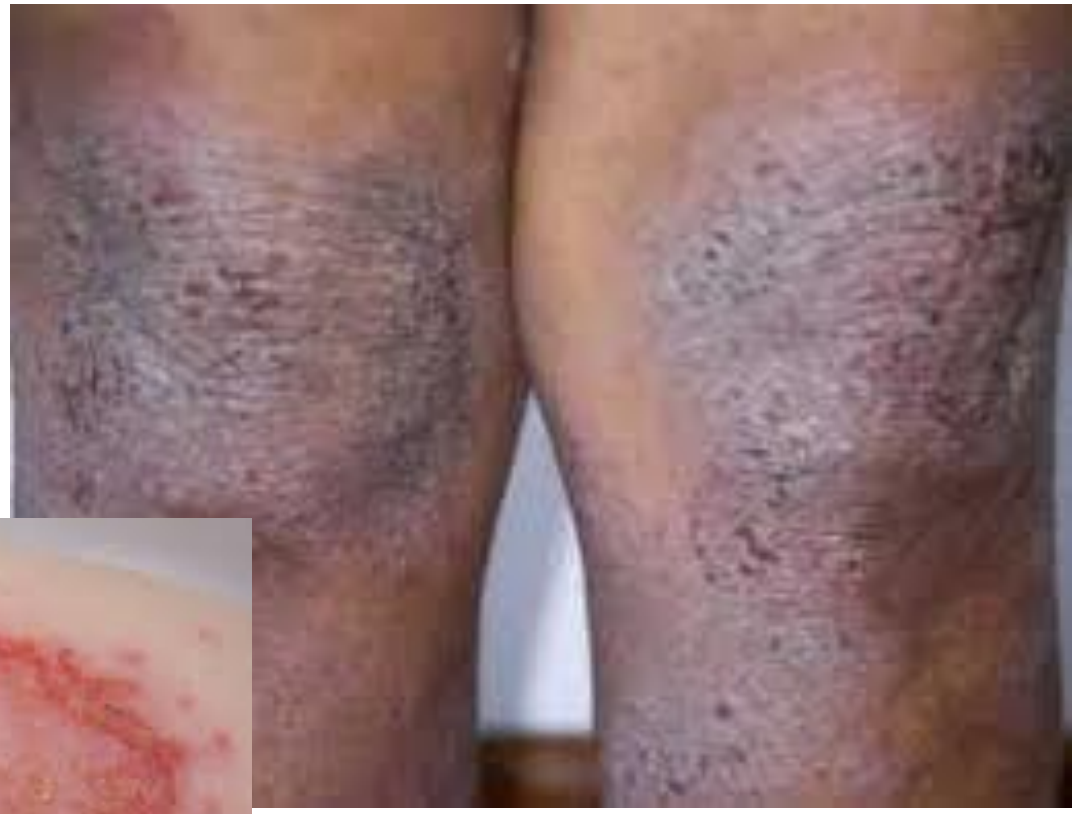
https://commons.wikimedia.org/

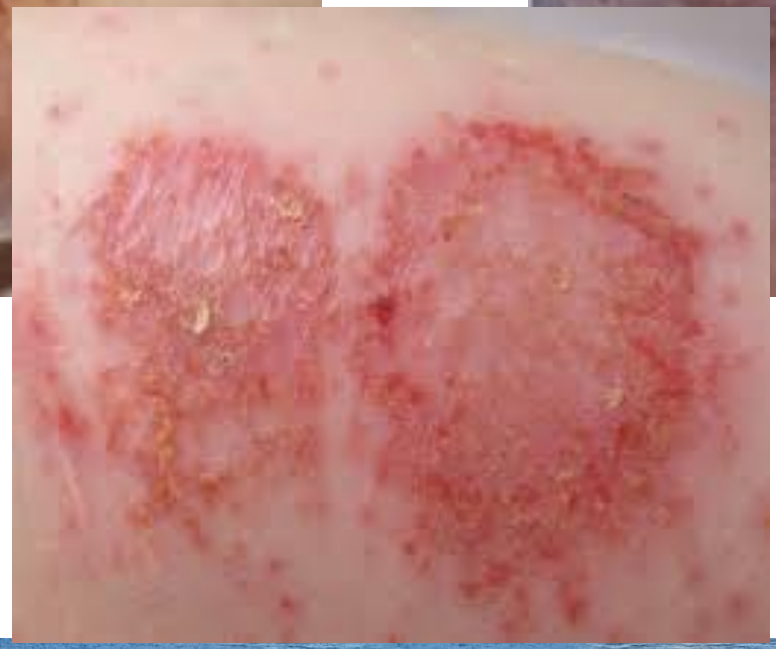


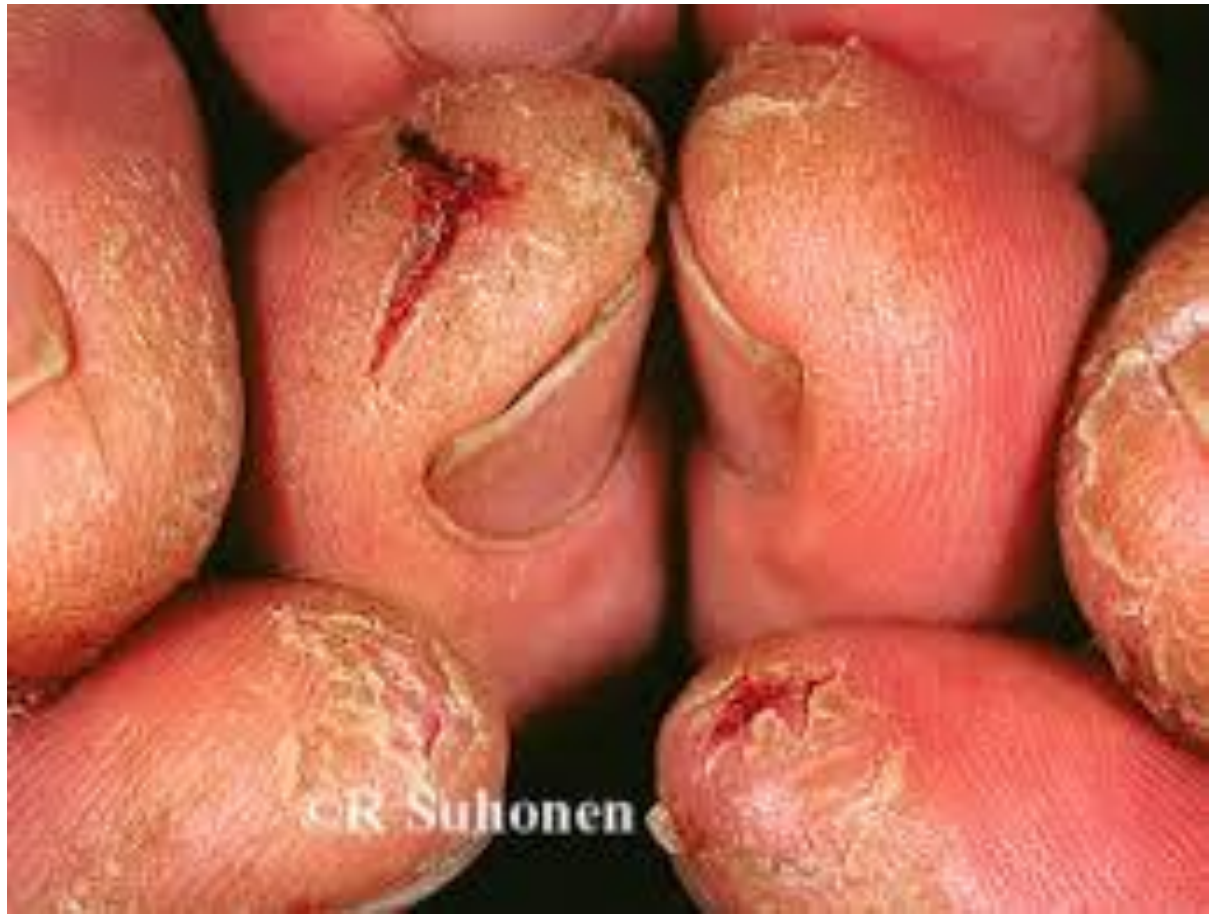


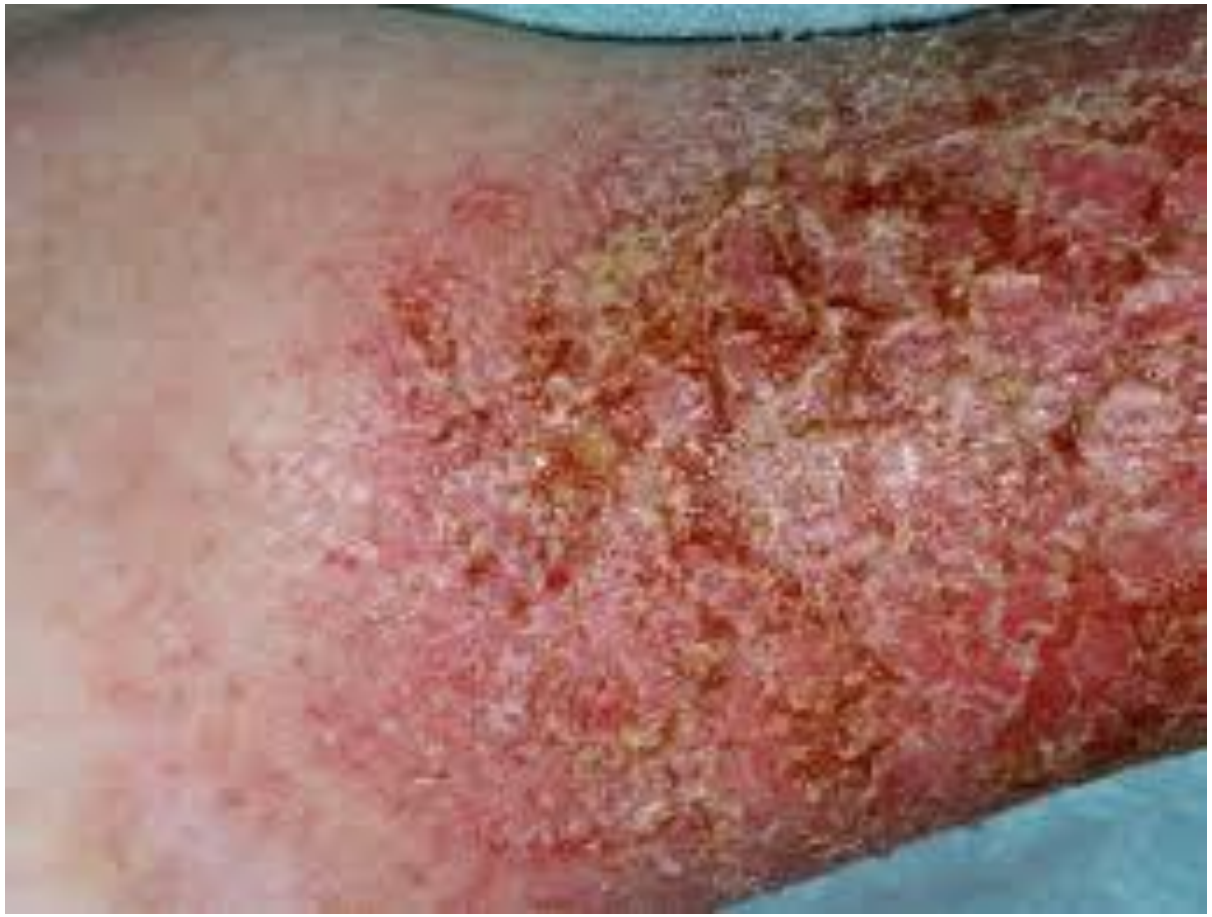


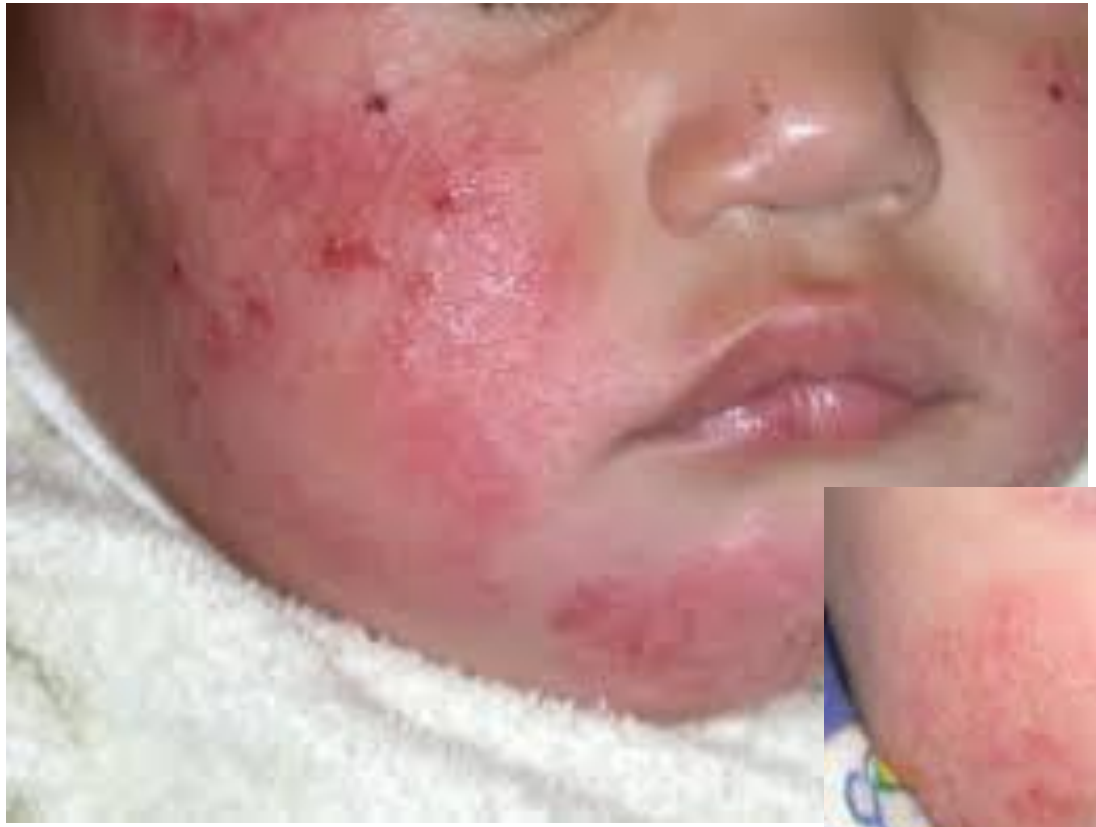


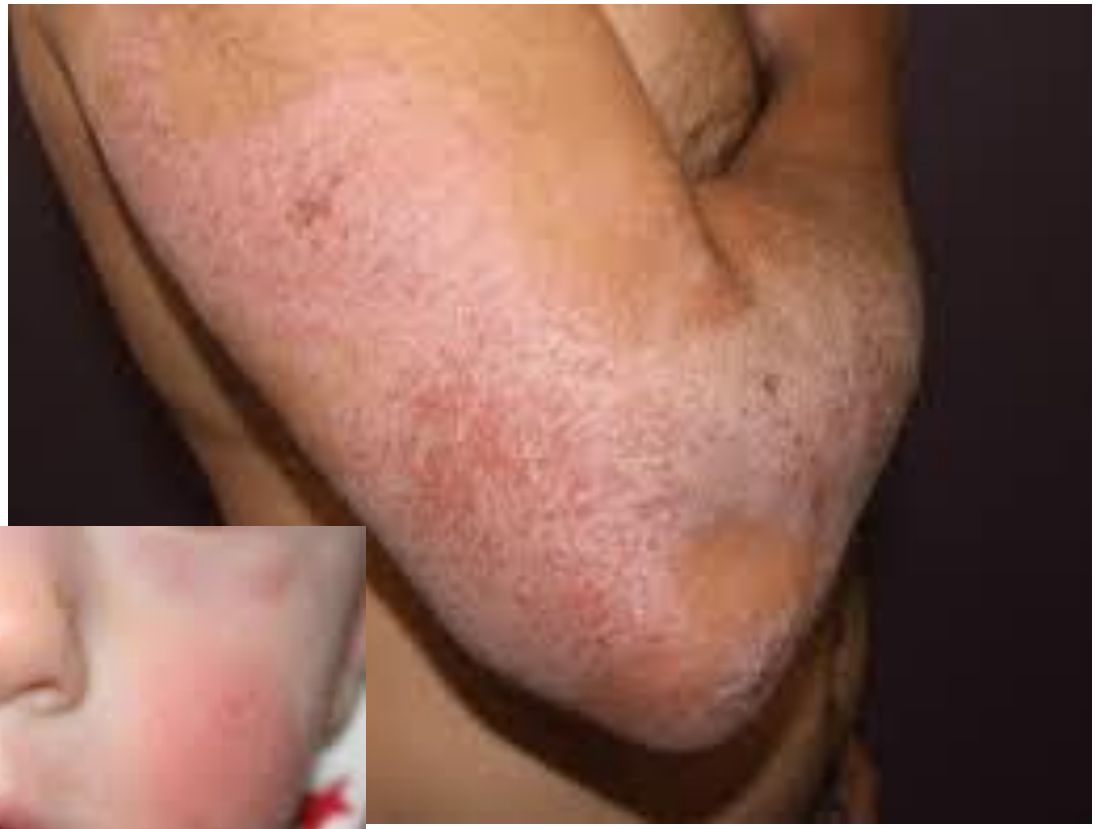


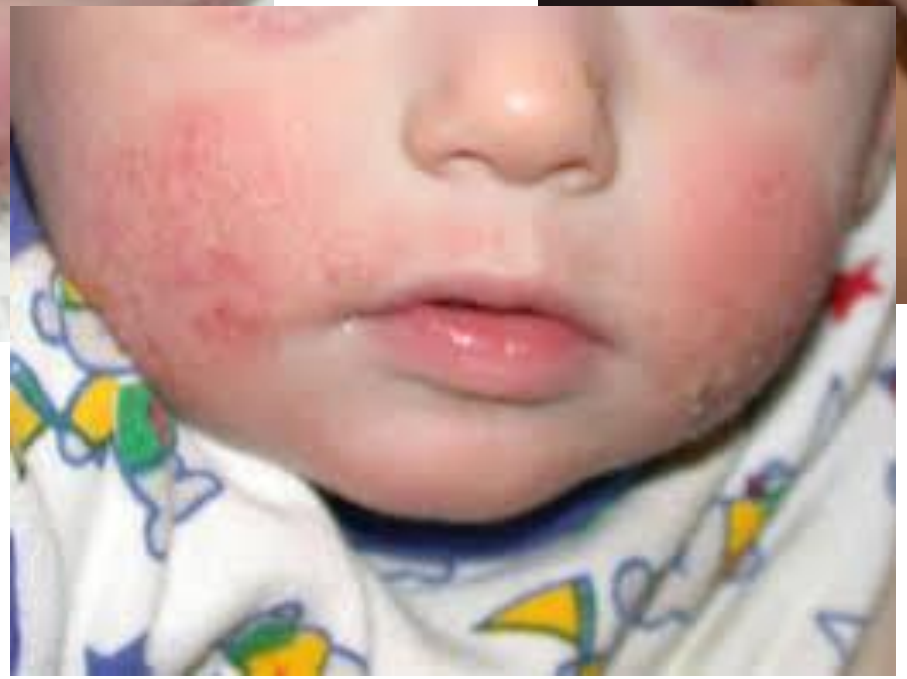












Diagnosis

What does it look like?

Diagnosis

What does it look like?

Dry, peeling, red-pink

Diagnosis?

Diagnosis

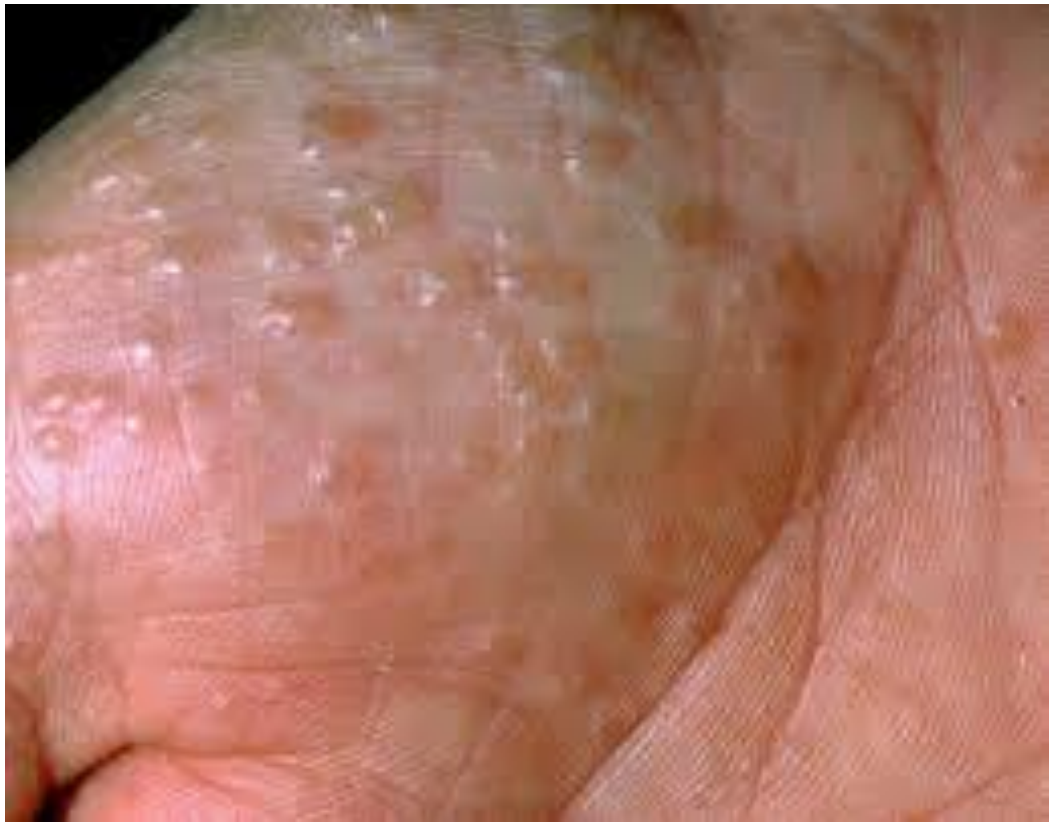
What does it look like?

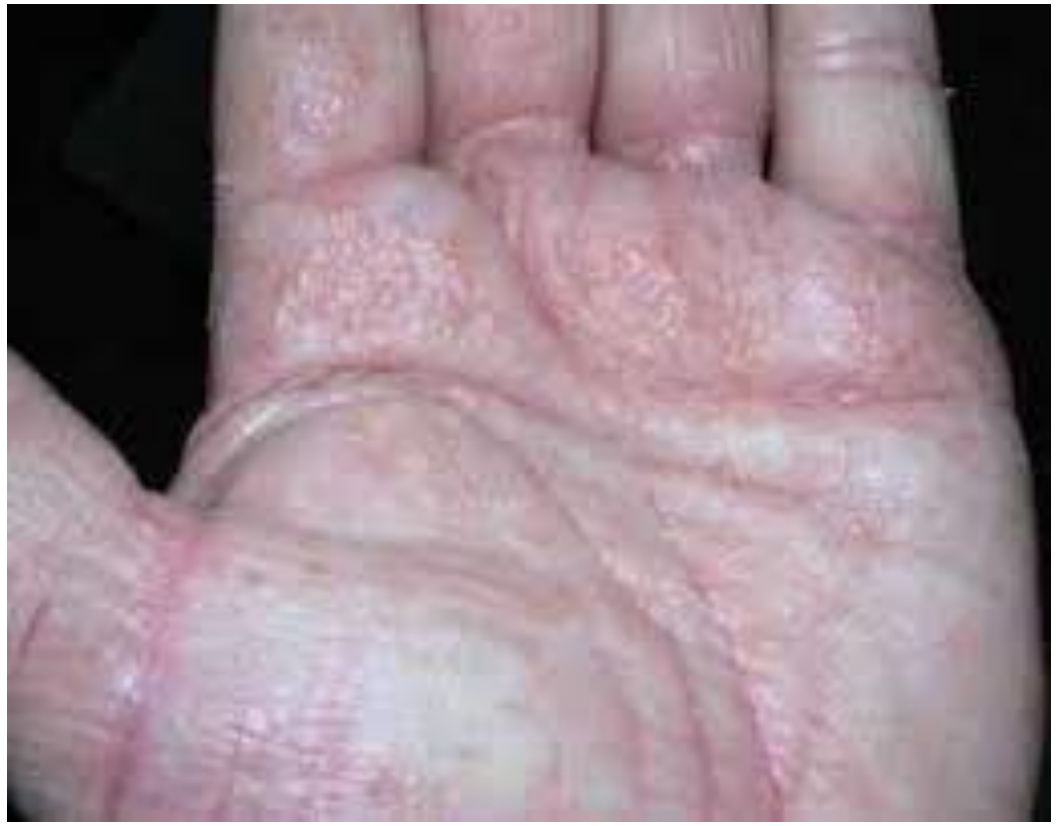
Dry, peeling, red-pink

Diagnosis?

Eczema *aka* Atopic Dermatitis

Exception…….





Dyshidrotic eczema

General Dermatology Treatment

- If it's wet, dry it
- If it's dry, moisten it
- If the patient is not on steroids, start them
- If the patient is on steroids, stop them

General Dermatology Treatment

- If it's wet, dry it
  - Calamine (ferric oxide) – avoid topical diphenhydramine
  - Colloidal oatmeal
- If it's dry, moisten it
  - Petroleum jelly – "occlusive" – Aquaphor ®, Vaseline ®; also lanolin, liquid paraffin
  - Other emollients and moisturizers – "humectant" – glycerine, hyaluronic acid, PG, urea

UC Treatment – Eczema

- Emollients/moisturization
- Antihistamines, anti-pruritics prn
- Topical steroids or calcineurin inhibitors
  - Pimecrolimus (Elidel®) 1% cream BID
  - Tacrolimus (Protopic®) 0.03% or 0.1% ointment BID
- Avoid known allergens, consider allergy testing
- Reassess diagnosis if no better in 4-6 weeks

More Advanced Treatment – Eczema

- UV radiation with Psoralens - PUVA or PUVB
- Immunosuppressive treatments (< 2%) – methotrexate, azathioprine, cyclosporine
- Biologicals (anti-cytokine) – dupilumab (Dupixent®), tralokinumab, etc
- Small molecules (block JAK/STAT pathway, pre-cytokine) – upadacitinib (Rinvoq®), baricitinib, etc

Topical steroids - Formulations

Ointments

- most potent - use for thickened/hyperkeratotic lesions
- moisturizing/occlusive - may result in folliculitis when used in in hairy areas

Creams

- less potent than ointment
- drying (use for moist rashes, intertriginous areas)
- no residue

Lotions and gels

- less occlusive and greasy; work well in hair-bearing regions

Foams

- best for the scalp but usually more expensive

Topical steroids – Potency/Classes

Potency	Class	Topical Corticosteroid	Formulation
Ultrahigh	1	Clobetasol propionate	Cream, 0.05%
High	2	Betamethasone dipropionate	Ointment, 0.05%
		Fluocinonide	Cream, ointment, or gel, 0.05%
	3	Betamethasone dipropionate	Cream, 0.05%
		Betamethasone valerate	Ointment, 0.1%
		Triamcinolone acetonide	Ointment, 0.1%
Moderate	4	Desoximetasone	Cream, 0.05%
		Fluocinolone acetonide	Ointment, 0.025%
		Hydrocortisone valerate	Ointment, 0.2%
		Triamcinolone acetonide	Cream, 0.1%
	5	Betamethasone dipropionate	Lotion, 0.02%
		Betamethasone valerate	Cream, 0.1%
		Fluocinolone acetonide	Cream, 0.025%
		Hydrocortisone butyrate	Cream, 0.1%
		Hydrocortisone valerate	Cream, 0.2%
		Triamcinolone acetonide	Lotion, 0.1%
Low	6	Betamethasone valerate	Lotion, 0.05%
		Desonide	Cream, 0.05%
		Fluocinolone acetonide	Solution, 0.01%
	7	Dexamethasone sodium phosphate	Cream, 0.1%
		Hydrocortisone acetate	Cream, 1%
		Methylprednisolone acetate	Cream, 0.25%

[a]Adapted from World Health Organization.[7]

Topical steroids – the Propylene Glycol issue

Catanzaro and Smith. Propylene glycol dermatitis. *J Am Acad Dermatol*. 1991 Jan;24(1):90-5.

doi: 10.1016/0190-9622(91)70018-w

https://www.personalhealthfacts.com/carcinogens2.pdf

TABLE III. Propylene glycol-free topical corticosteroids

	O	G	C	L	S
Amcinonide					
Cyclocort			X	X	
Betamethasone dipropionate					
Alphatrex	X		X	X	
Diprosone	X			X	
Maxivate	X		X		
Betamethasone valerate					
Betatrex	X		X	X	
Desowen	X				
Tridesilon	X		X		
Valisone	X			X	
Desonide					
Desowen	X				
Tridesilon	X		X		
Desoximetasone					
Topicort		X	X		
Topicort LP			X		
Diflorasone diacetate					
Florone	X				
Maxiflor	X				
Fluocinolone acetonide					
Synalar	X				
Flurandrenolide					
Cordran	X			X	
Halcinonide					
Halog	X				X
Hydrocortisone					
Hytone	X				
Lacticare HC				X	
Nutracort				X	
Hydrocortisone acetate					
Pramosone	X			X	
Hydrocortisone butyrate					
Locoid	X		X		
Triamcinolone acetonide					
Aristocort	X				
Aristocort A			X		
Kenalog	X				

O. ointment; G. gel; C. cream; L. lotion; S. solution

Topical steroids – Potential side effects

TABLE 3

Adverse Effects of Topical Corticosteroids

Cutaneous effects

Atrophic changes
- Easy bruising
- Increased fragility
- Purpura
- Stellate pseudoscars
- Steroid atrophy
- Striae
- Telangiectasias
- Ulceration

Infections
- Aggravation of cutaneous infection
- Granuloma gluteale infantum
- Masked infection (tinea incognito)
- Secondary infections

Cutaneous effects *(continued)*

Miscellaneous
- Contact dermatitis
- Delayed wound healing
- Hyperpigmentation
- Hypertrichosis (hirsutism)
- Hypopigmentation
- Perioral dermatitis
- Photosensitization
- Reactivation of Kaposi sarcoma
- Rebound flare-up
- Steroid-induced acne
- Steroid-induced rosacea

Ocular changes
- Cataracts
- Glaucoma
- Ocular hypertension

Systemic effects

Endocrine
- Cushing syndrome
- Hypothalamic-pituitary-adrenal suppression

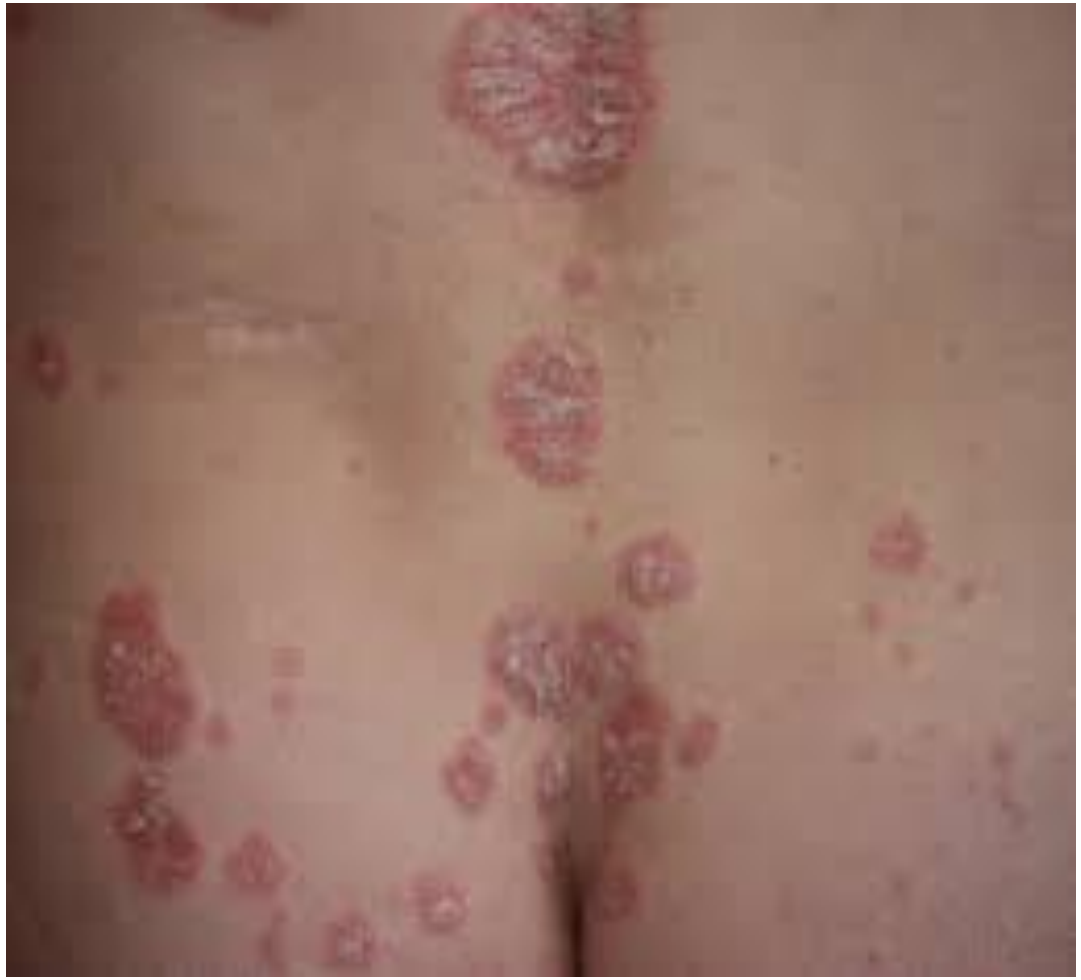
Metabolic
- Aseptic necrosis of the femoral head
- Decreased growth rate
- Hyperglycemia

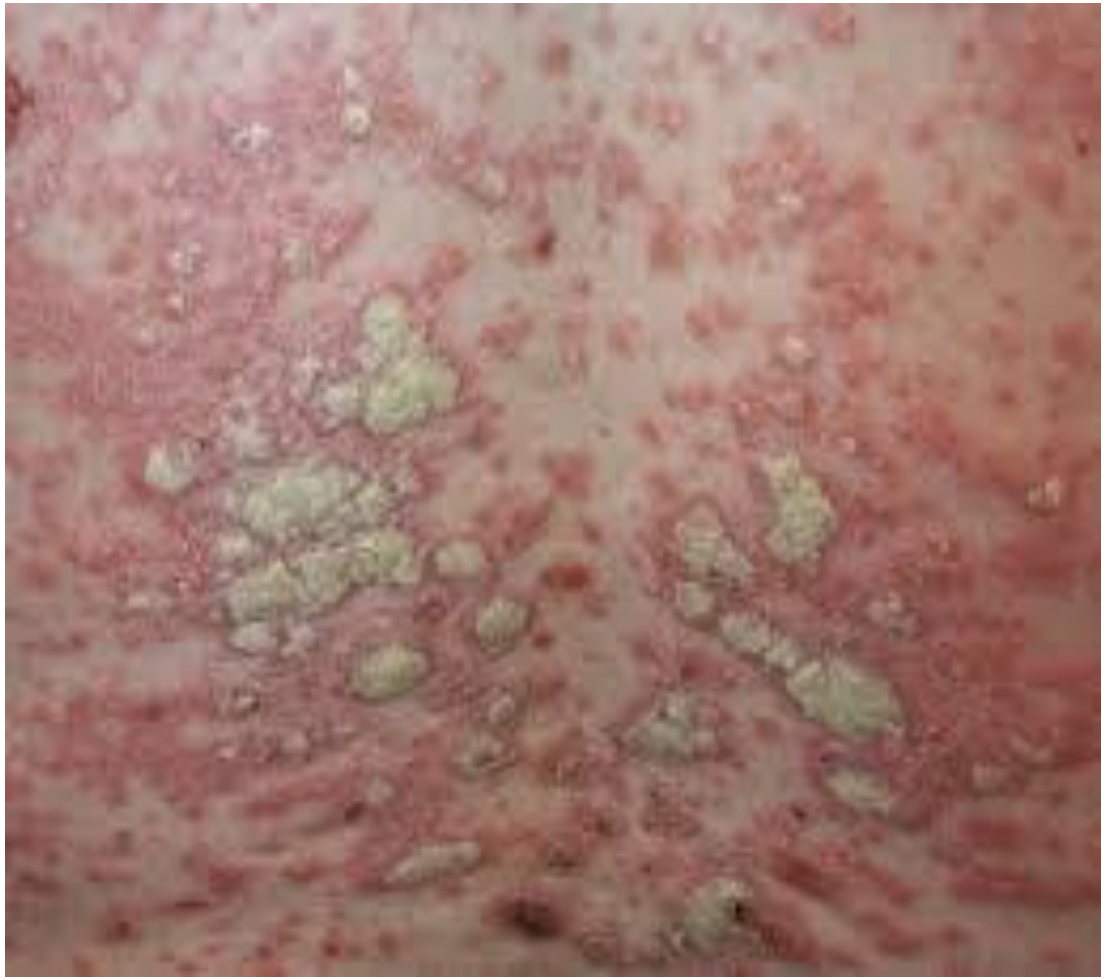
Renal/electrolyte
- Hypertension
- Hypocalcemia
- Peripheral edema

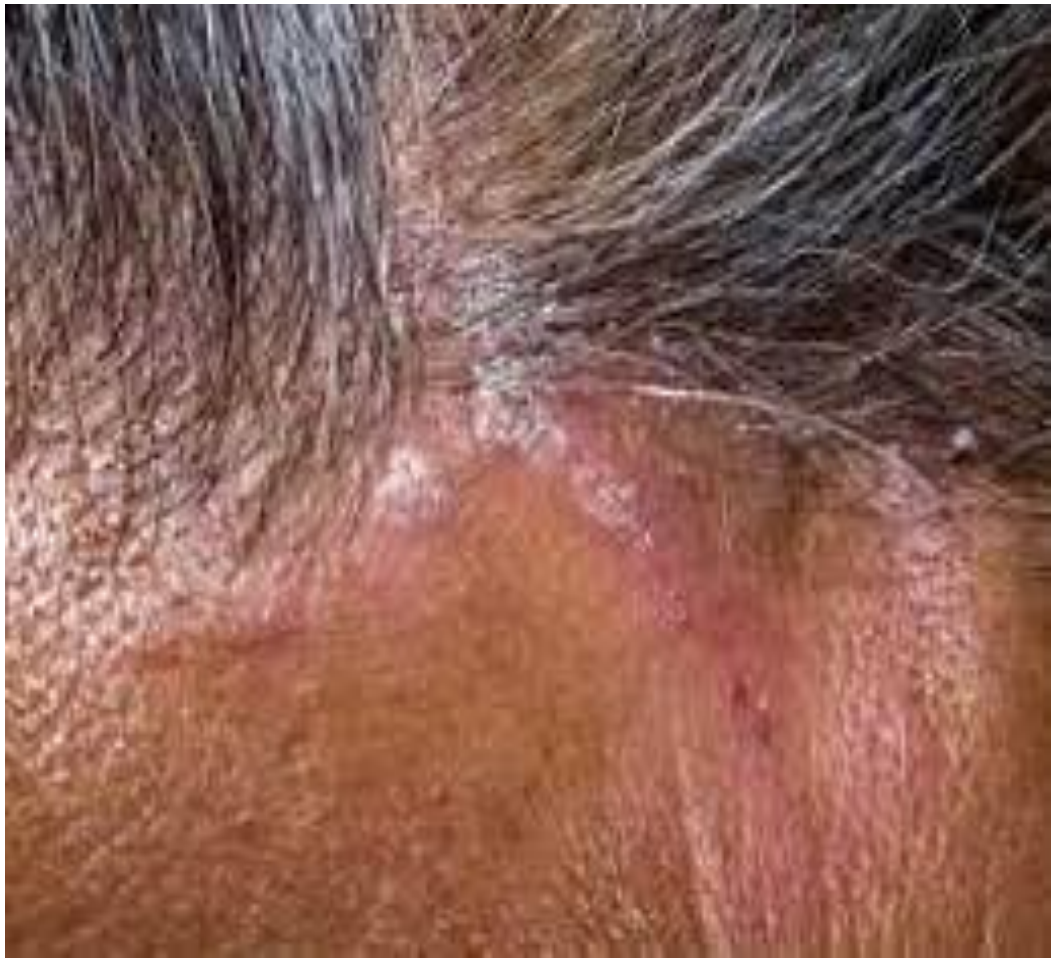
Adapted with permission from Hengge UR, Ruzicka T, Schwartz RA, et al. Adverse effects of topical glucocorticosteroids. J Am Acad Dermatol. *2006;54(1):5.*

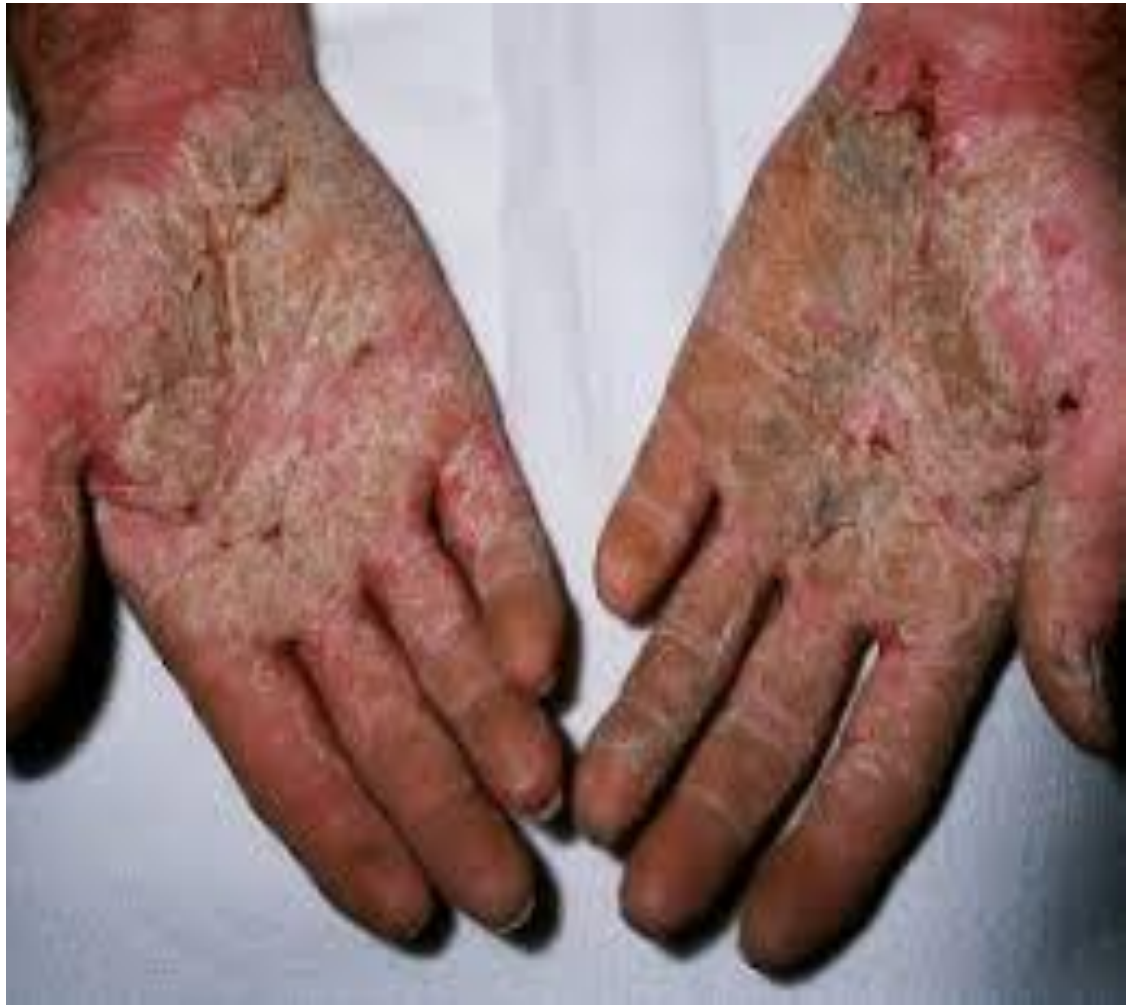
“Steroid Stewardship” pointers

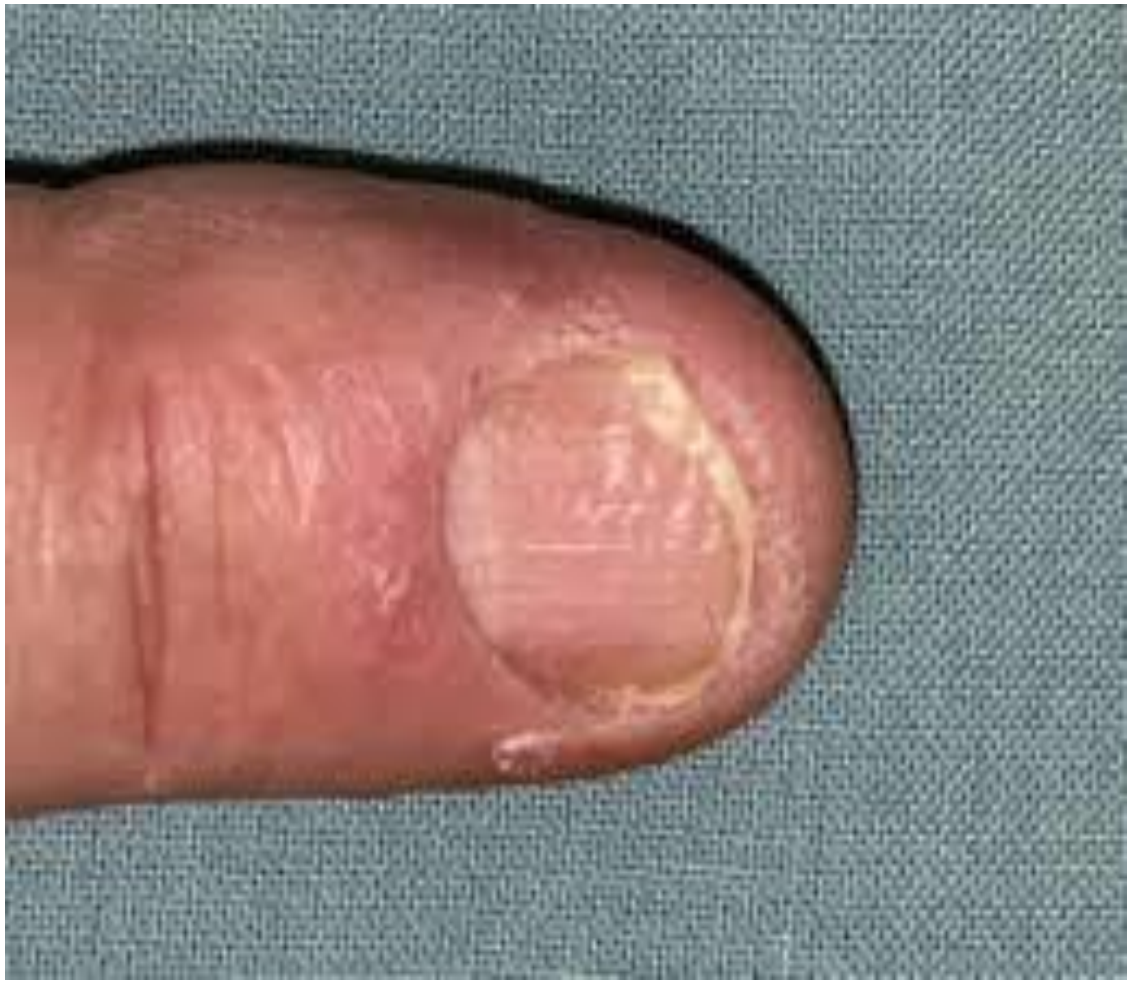
- Rx smallest amounts (15 g, 30 mL) and shortest duration – AFP reference longer
- “45, 90, 180.” 45g is often enough for 2 weeks of topical treatment of the face or arms, 90g for an extensive percentage of the legs, and 180g for the trunk.
- Rx as “FTU”s – finger-tip units
- Use low and medium potency (classes 4-7)
- Reserve high potency (class 3) for contact dermatitis/poison oak; taper after ≤2 weeks
- Defer decision re: systemic steroids for other than contact derm to dermatology











Diagnosis

What does it look like?

Diagnosis

What does it look like?

Dry, red, whitish-gray-green-scaly

Diagnosis?

Diagnosis

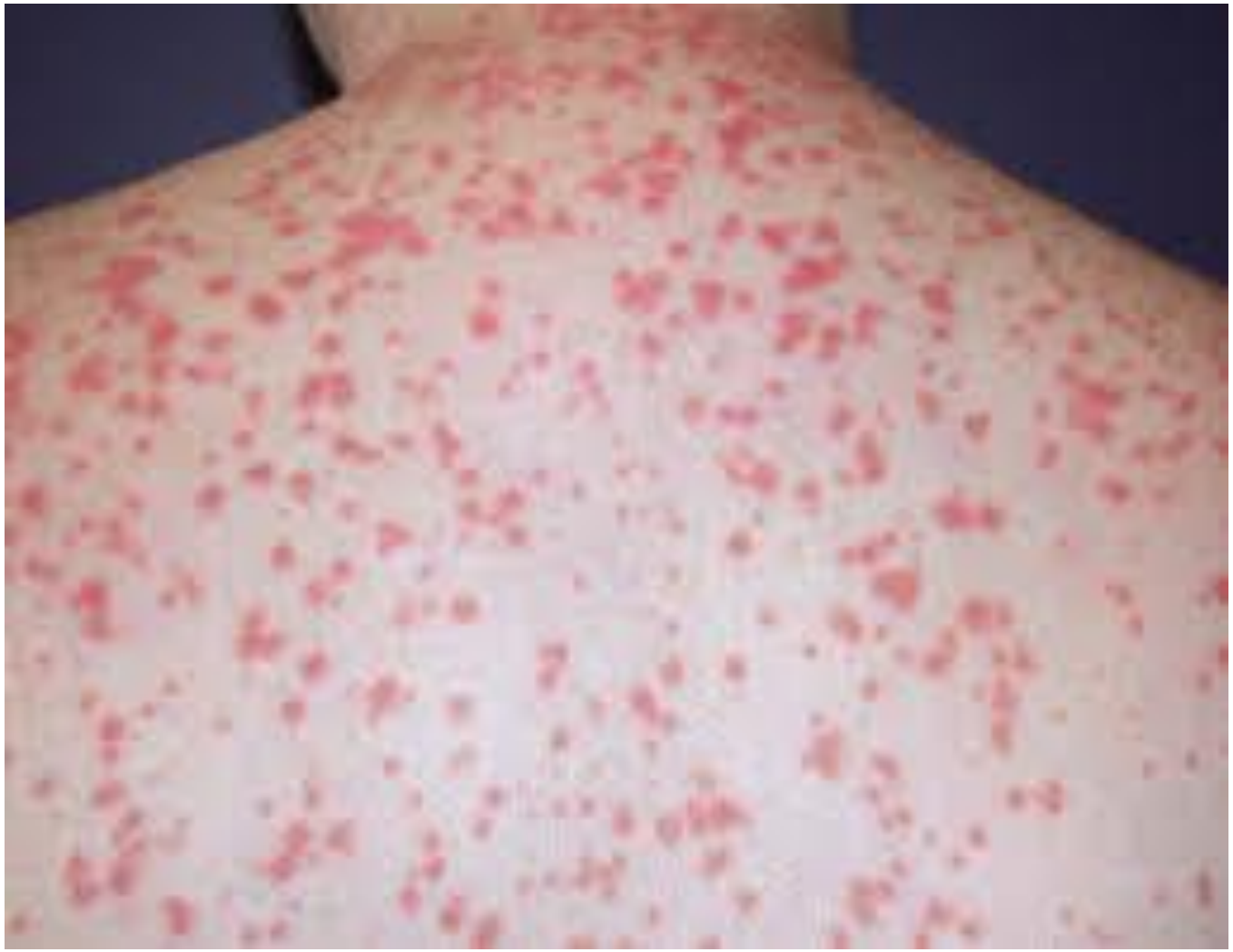
What does it look like?

Dry, red, whitish-gray-green-scaly

Diagnosis?

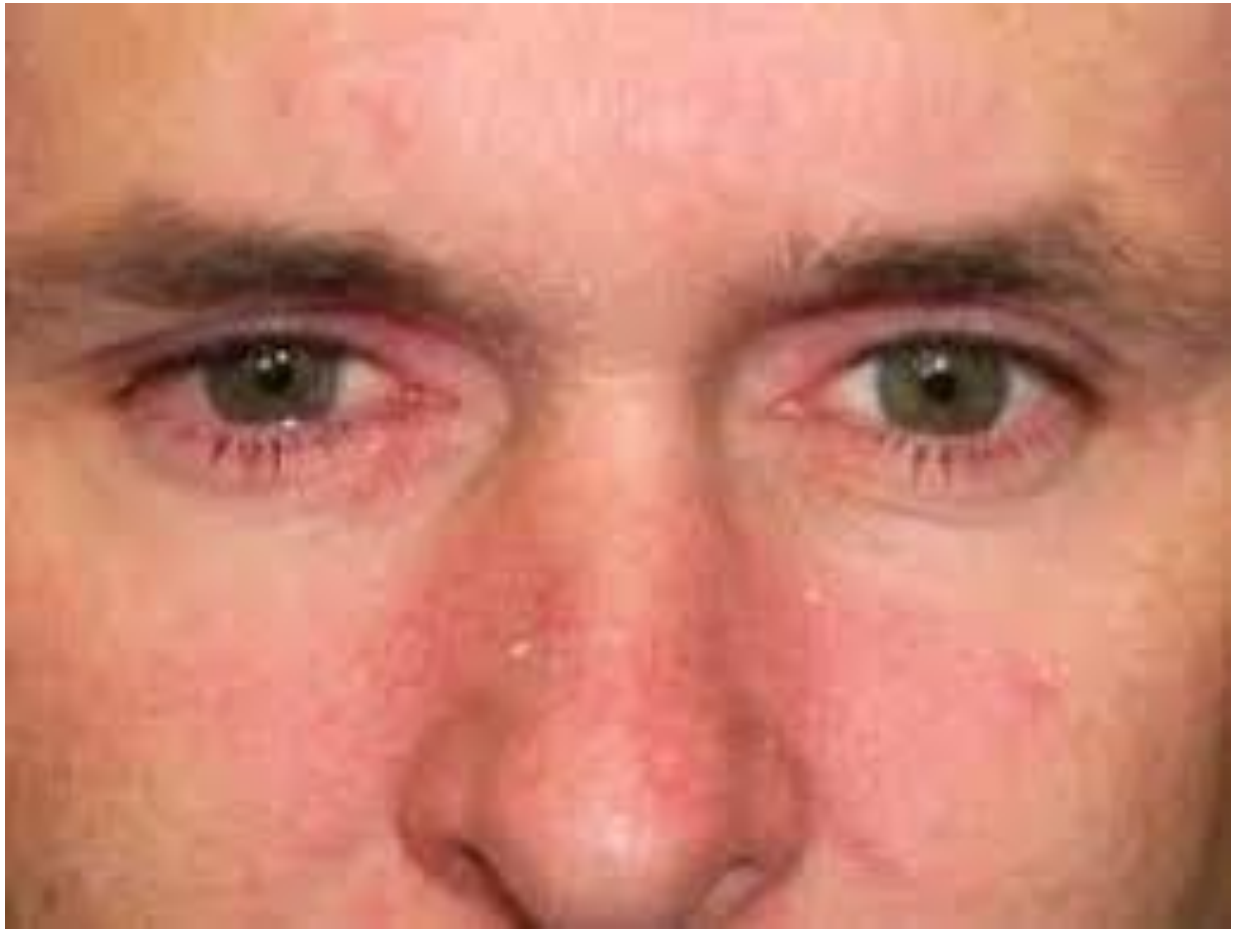
Psoriasis

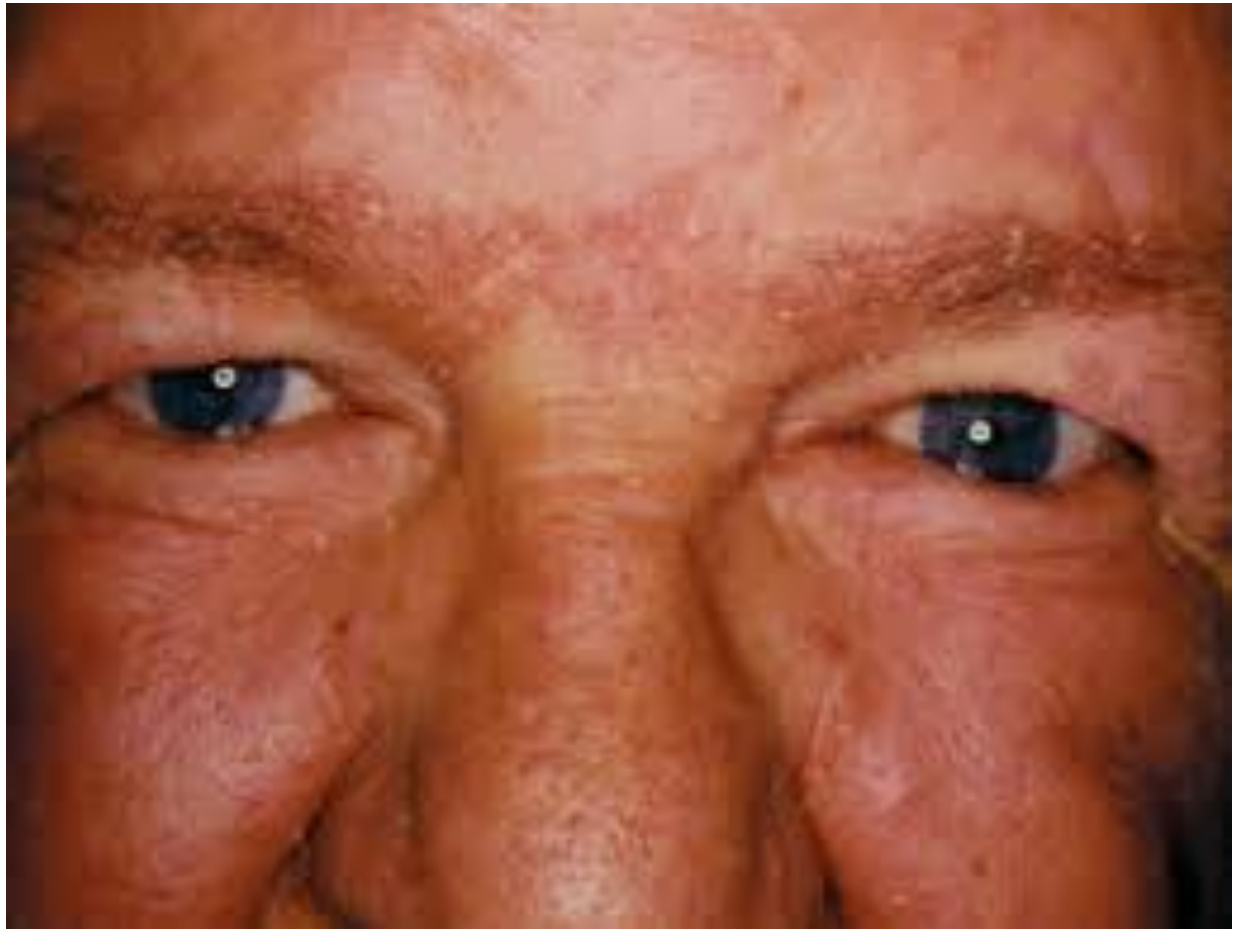
“Exception”

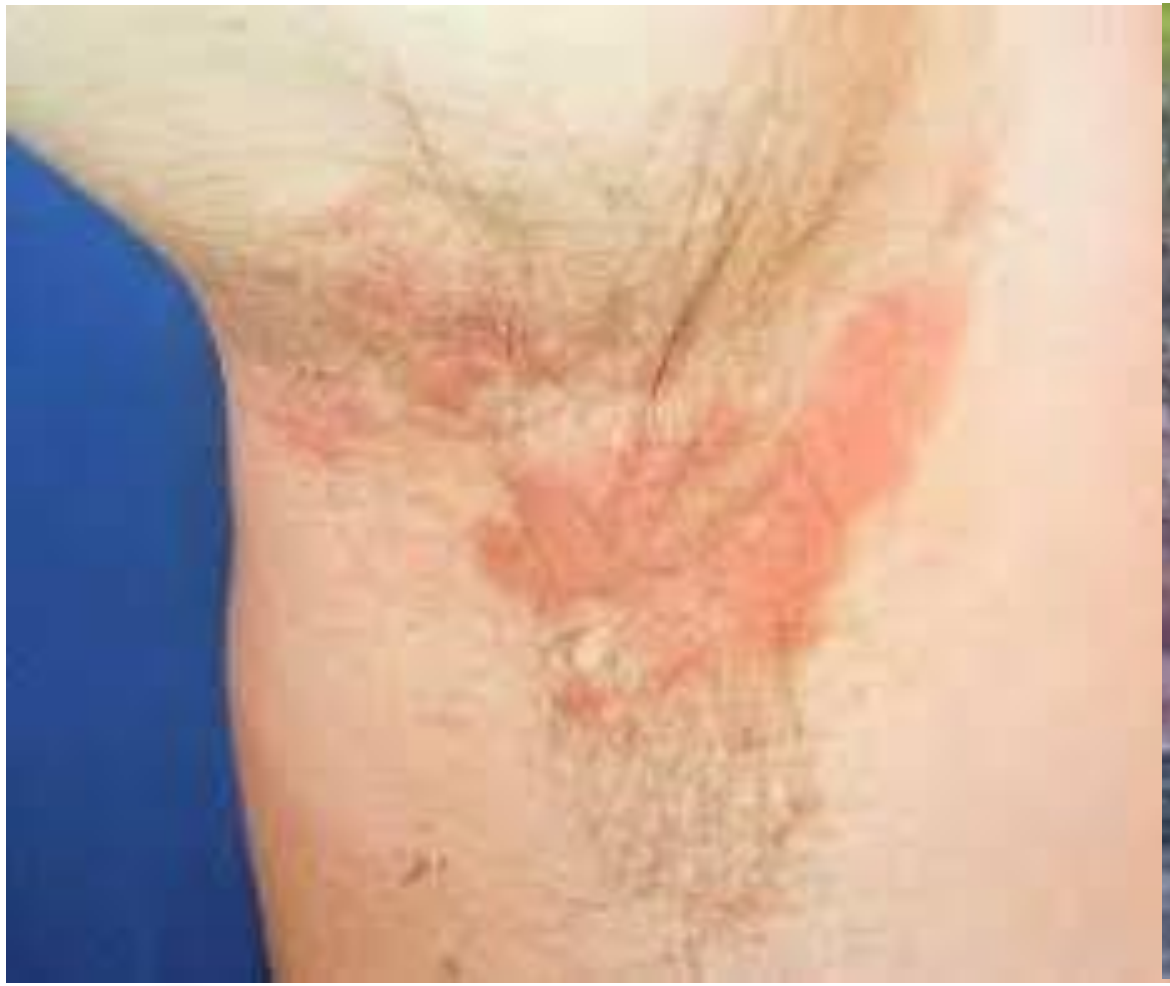


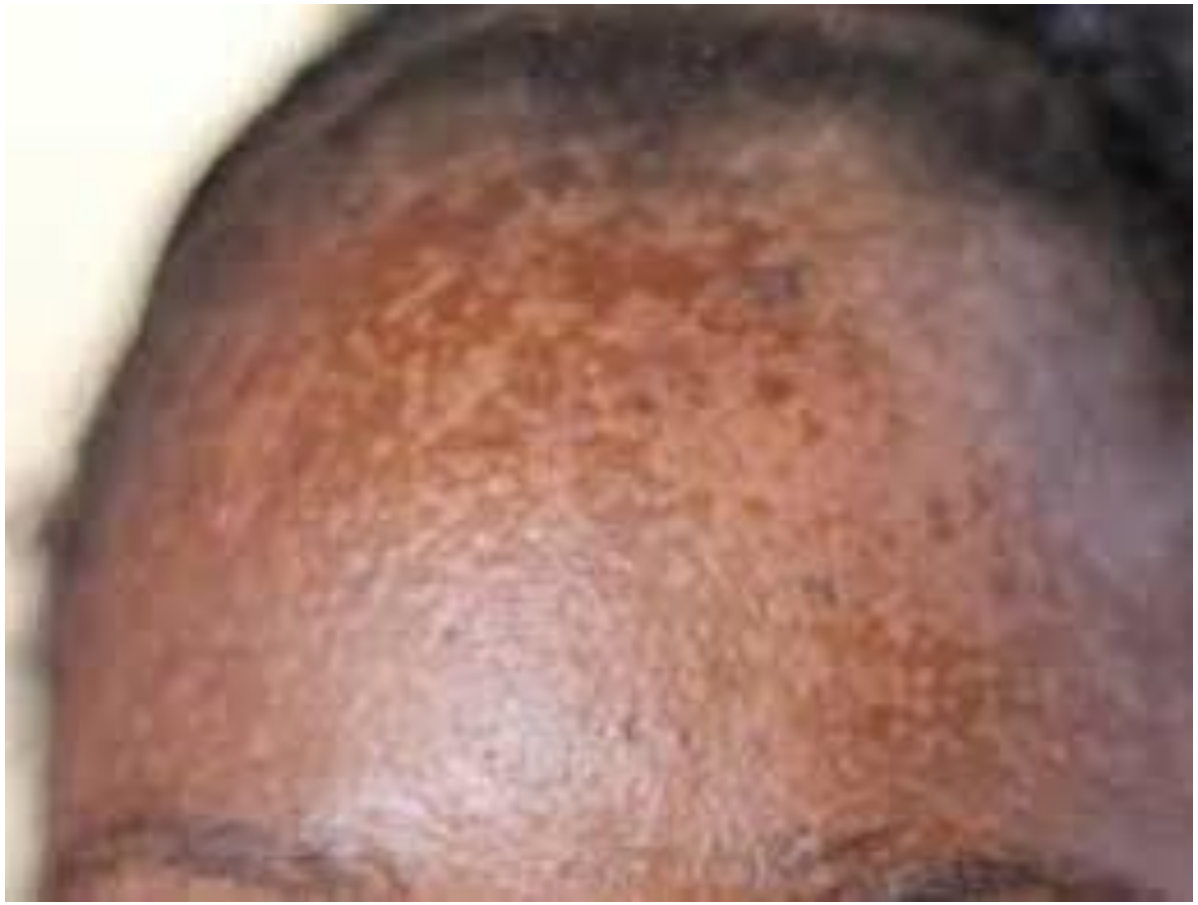
Treatment – Psoriasis

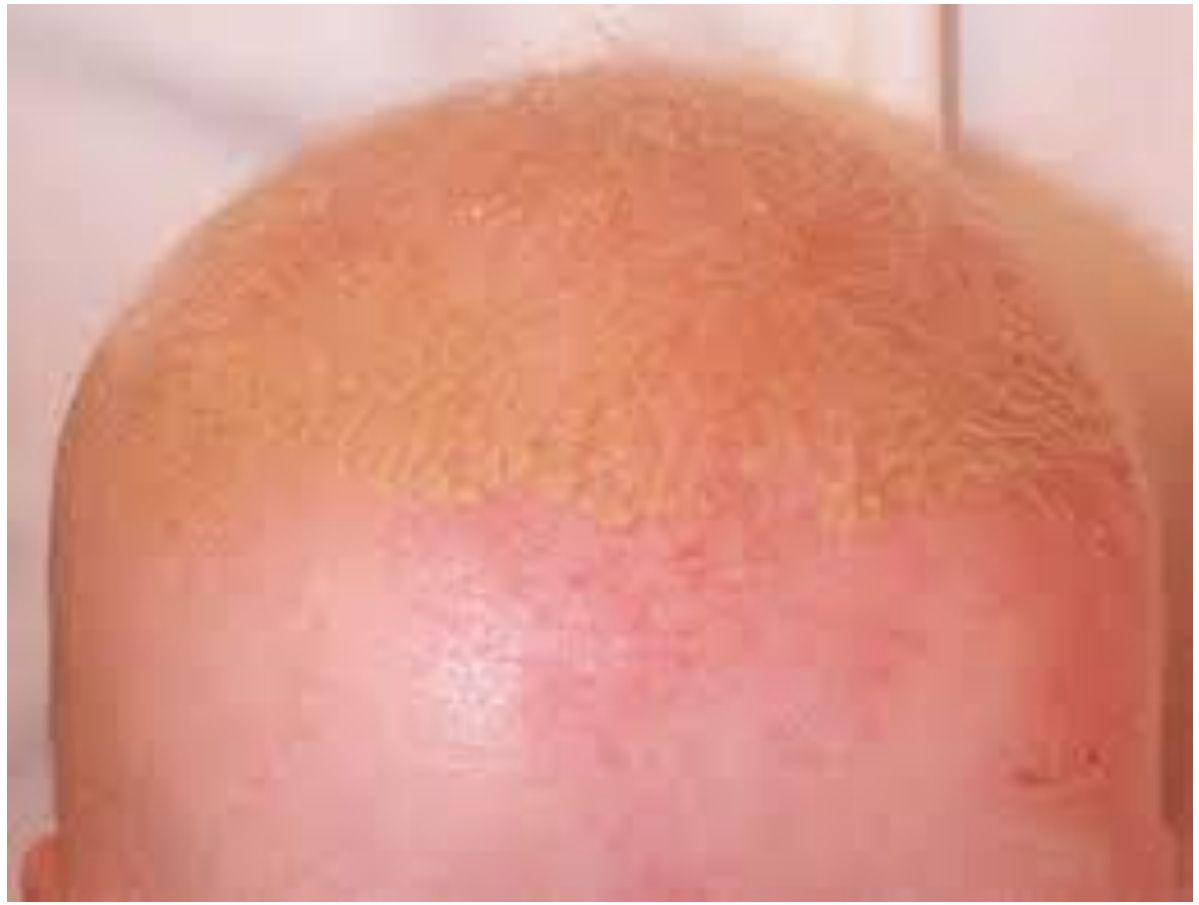
- Emollients/moisturization
- Antihistamines, anti-pruritics prn
- Topical steroids or calcineurin inhibitors
  - Pimecrolimus (Elidel®) 1% cream BID
  - Tacrolimus (Protopic®) 0.03% or 0.1% ointment BID
- Keratolytics - coal tar, dithranol, salicylic acid
- Similar (and other) advanced treatments to eczema











Diagnosis

What does it look like?

Diagnosis

What does it look like?

Moist/oily, flaky, pink

Diagnosis?

Diagnosis

What does it look like?

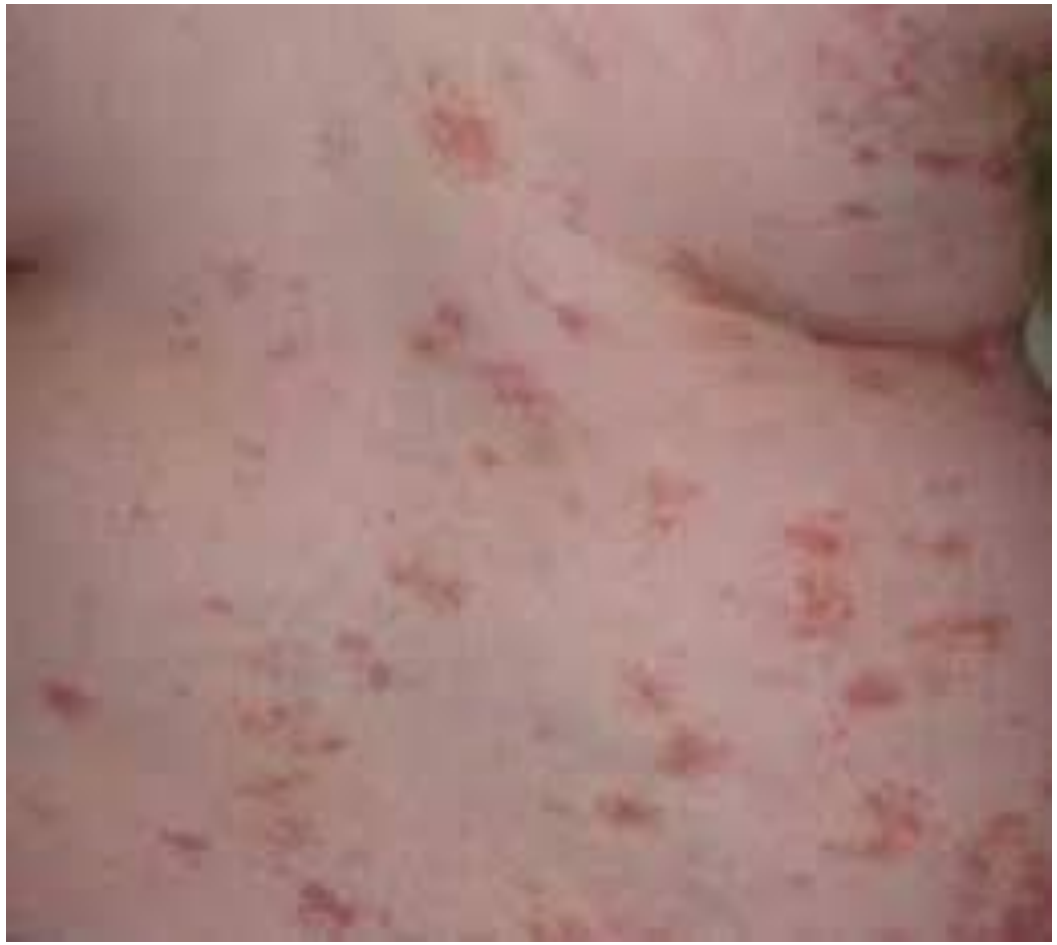
Moist/oily, flaky, pink

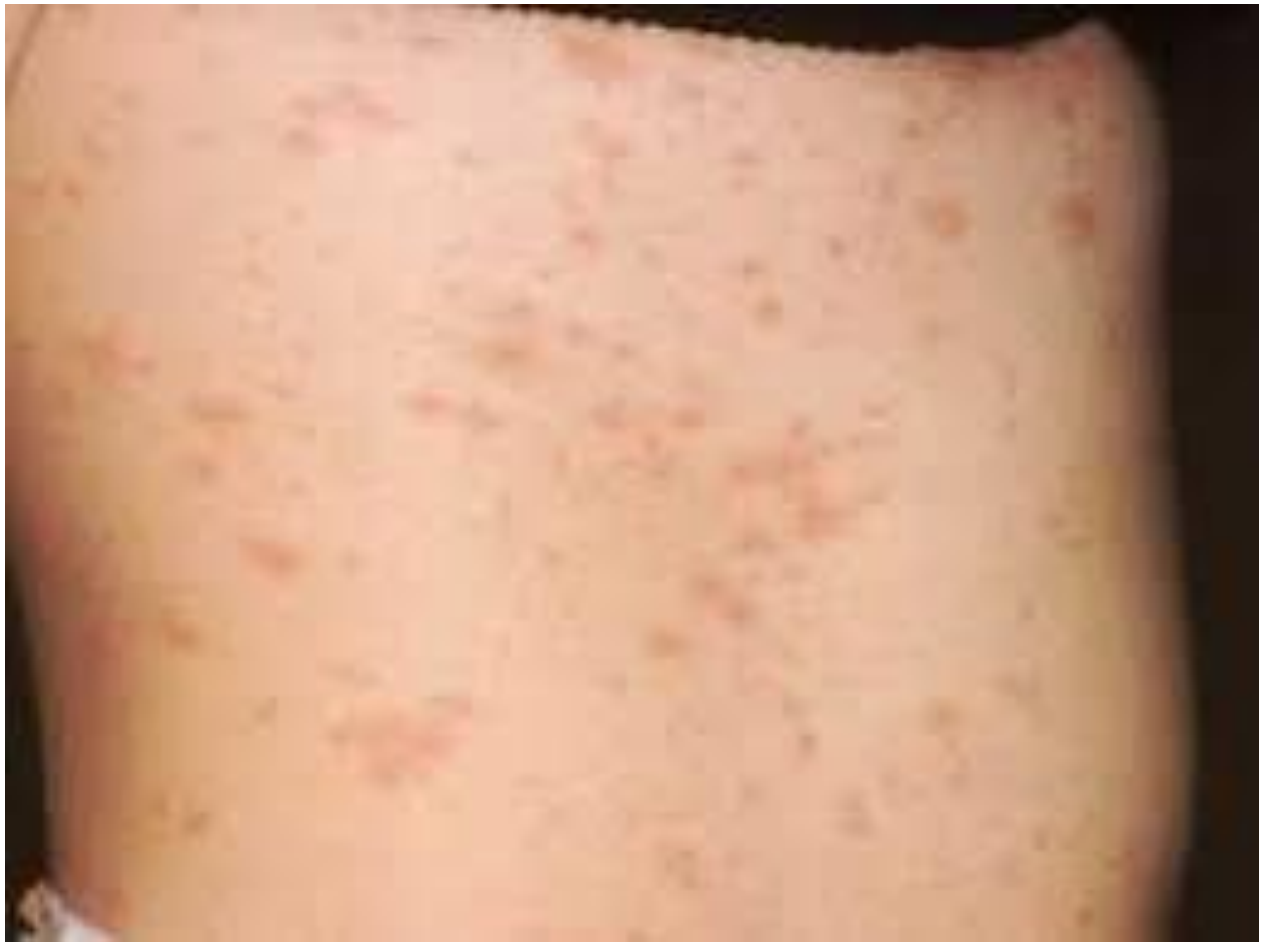
Diagnosis?

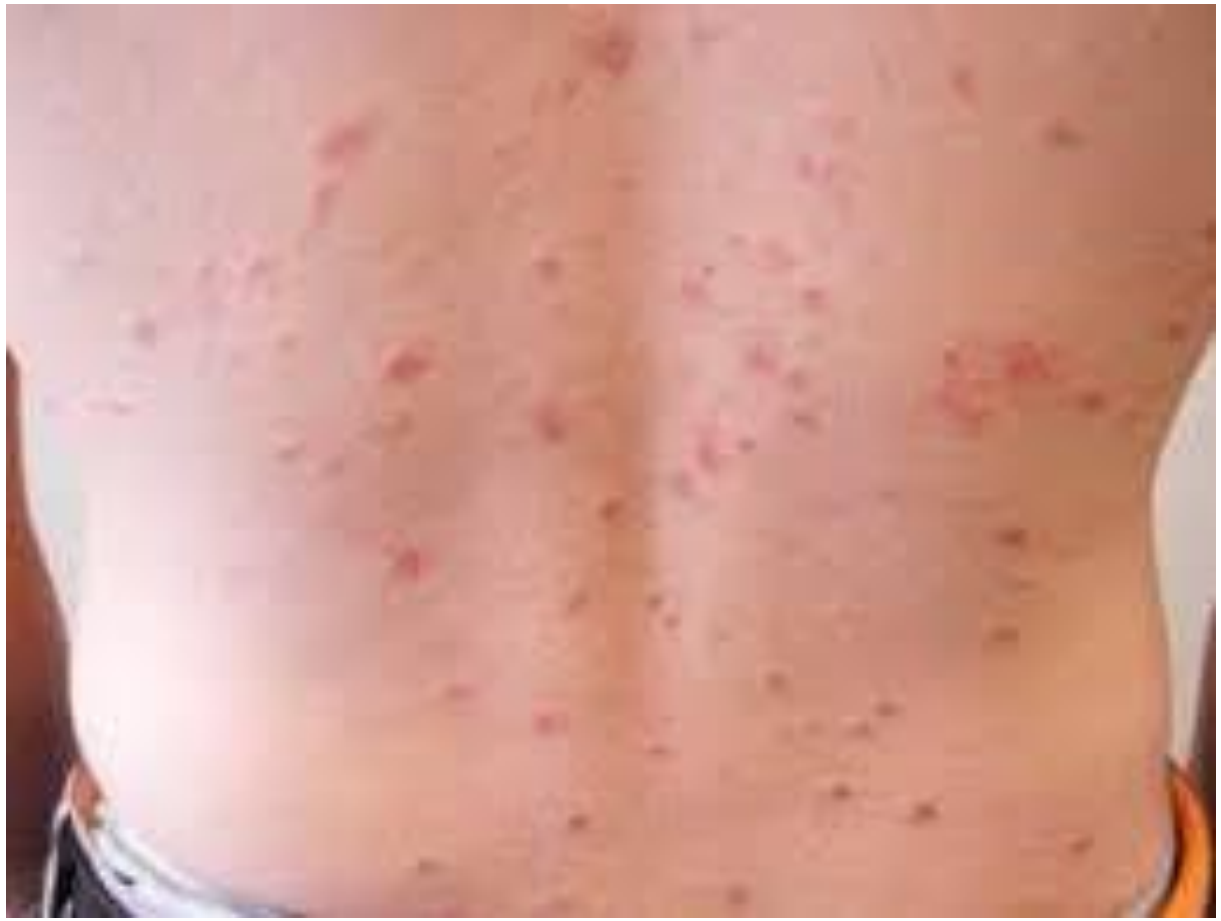
Seborrheic dermatitis

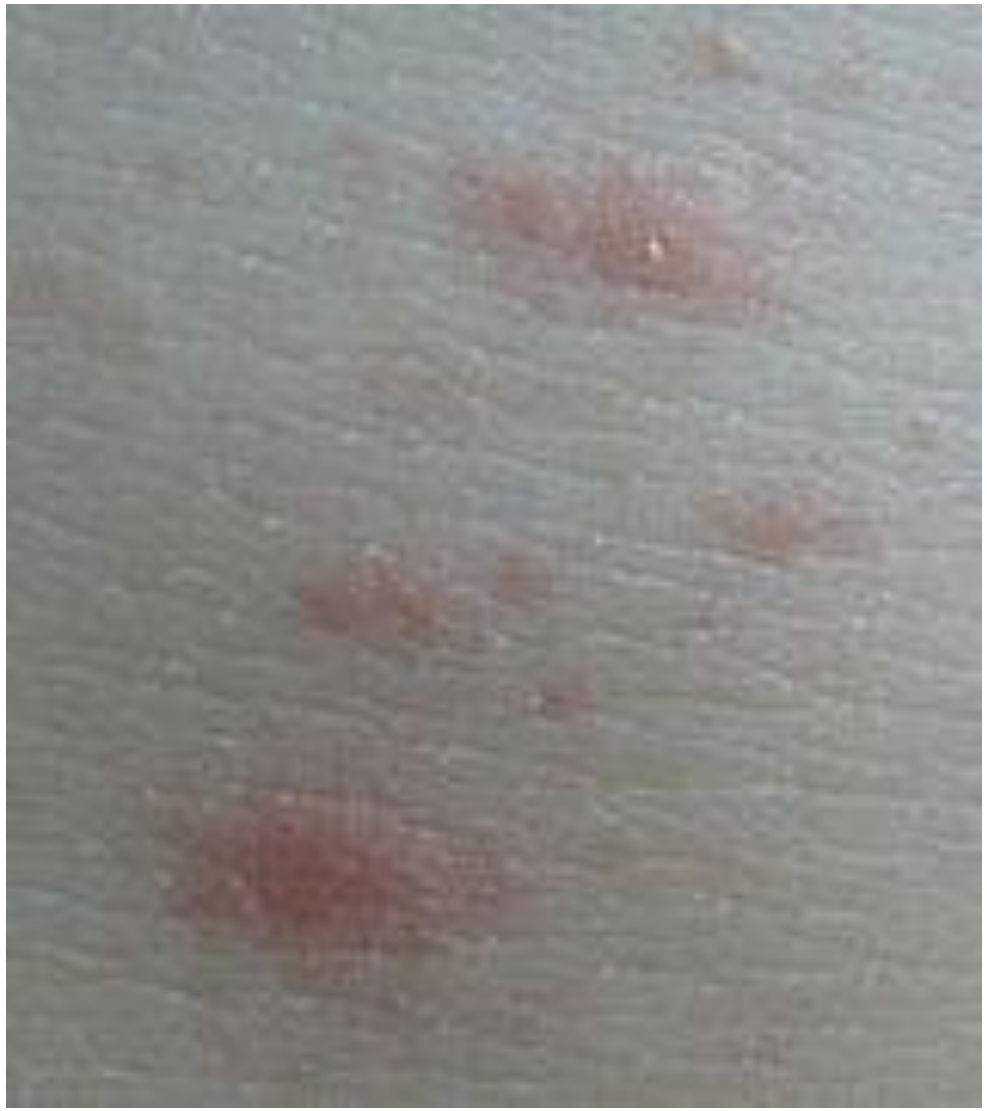
Treatment – Seborrheic dermatitis

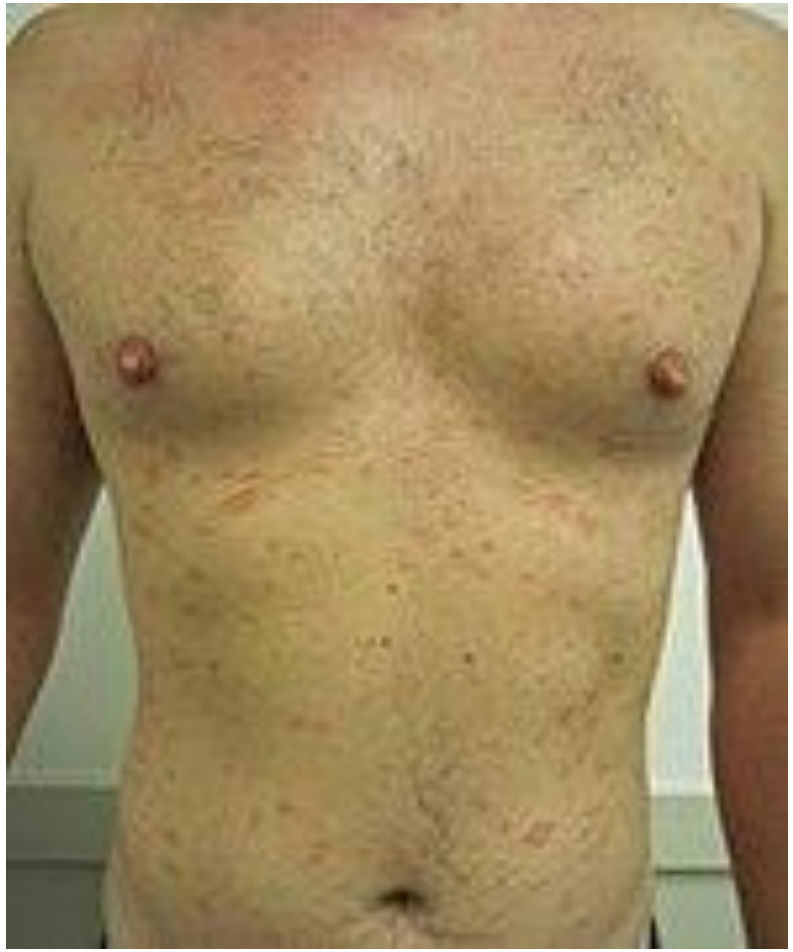
- Mild keratolyics – salicylic acid, urea ointment/gel/cream, propylene glycol
- Topical steroids or calcineurin inhibitors
  - Pimecrolimus (Elidel®) 1% cream BID
  - Tacrolimus (Protopic®) 0.03% or 0.1% ointment BID
- Consider topical antifungals
- Selenium shampoo for scalp involvement

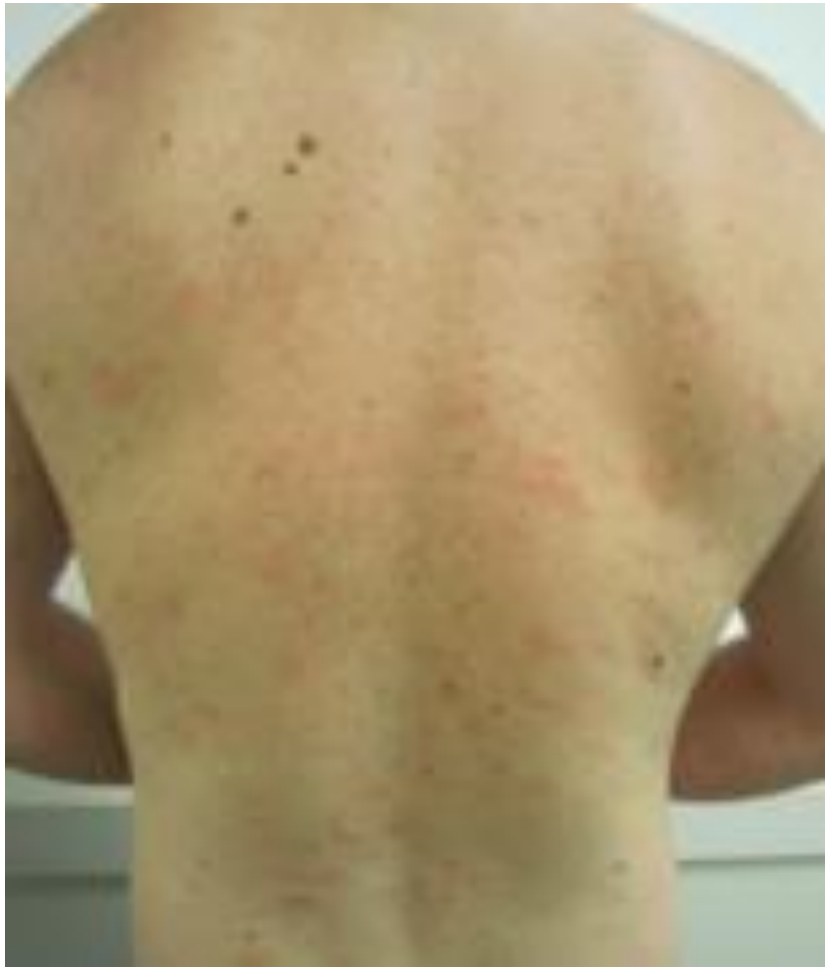


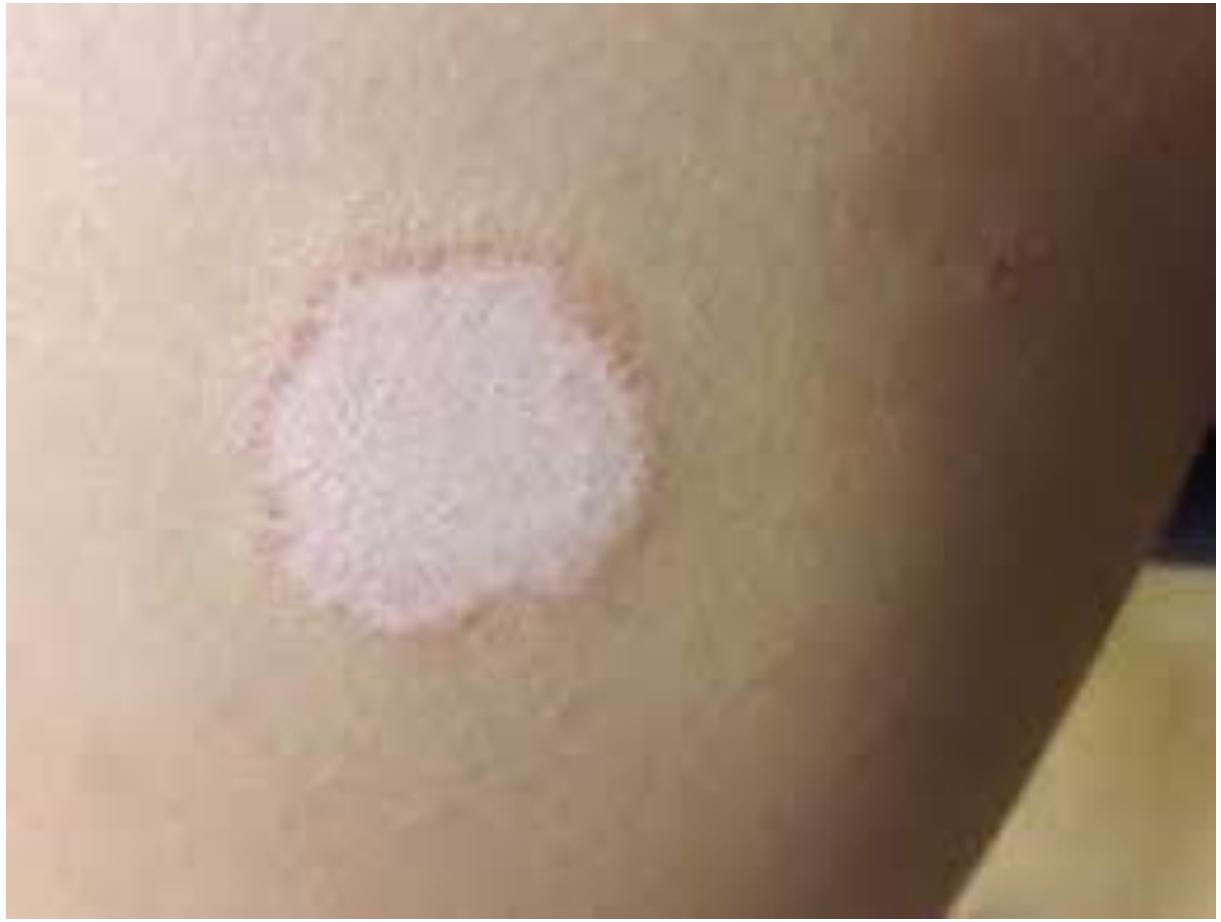


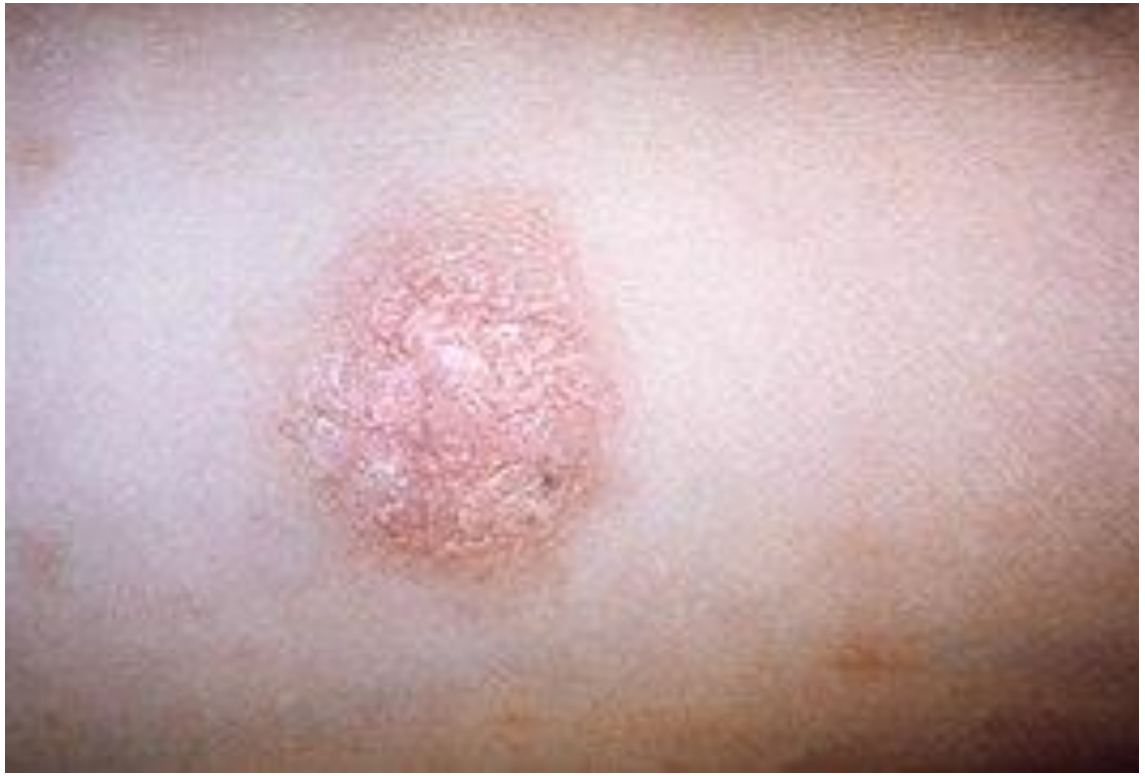


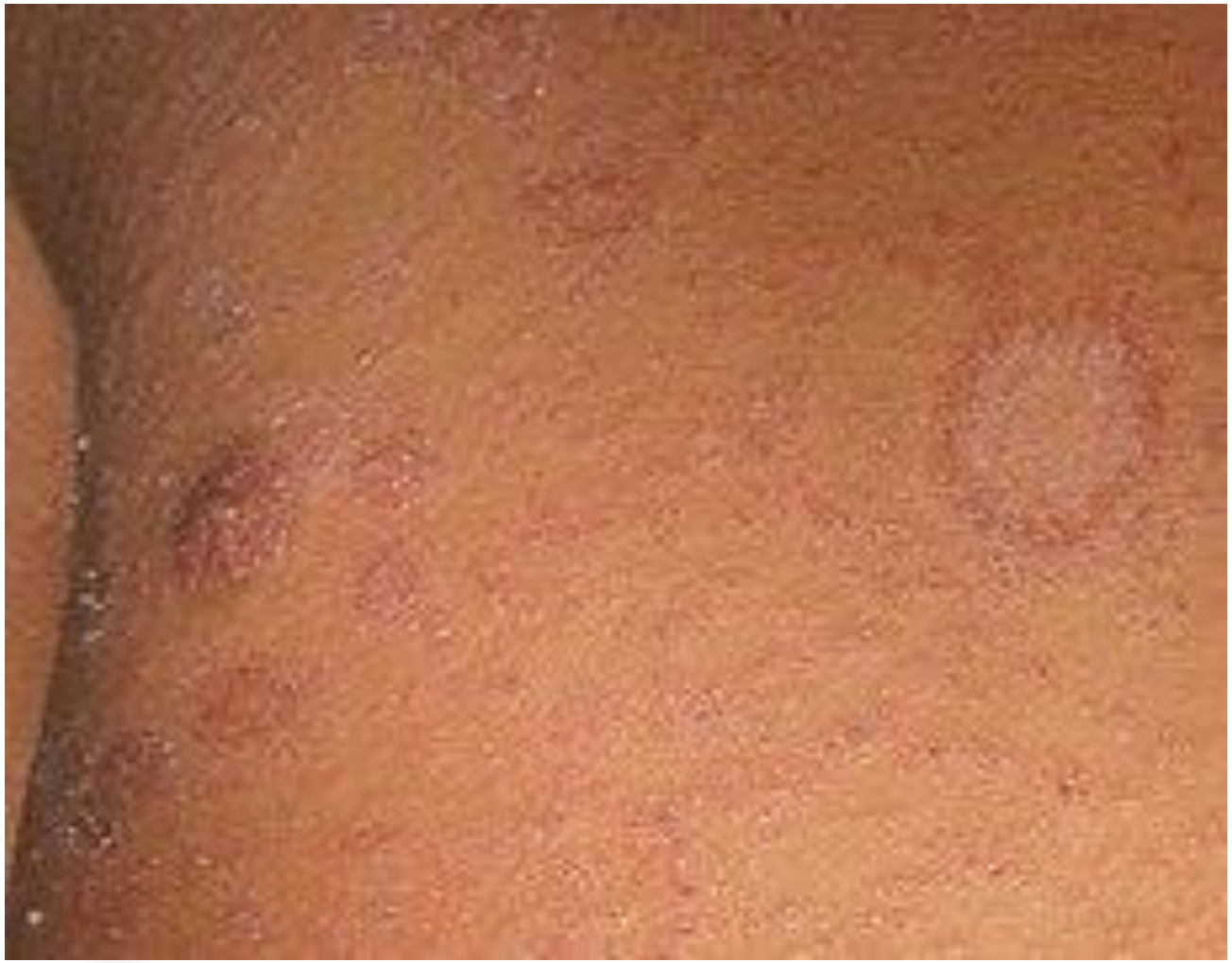


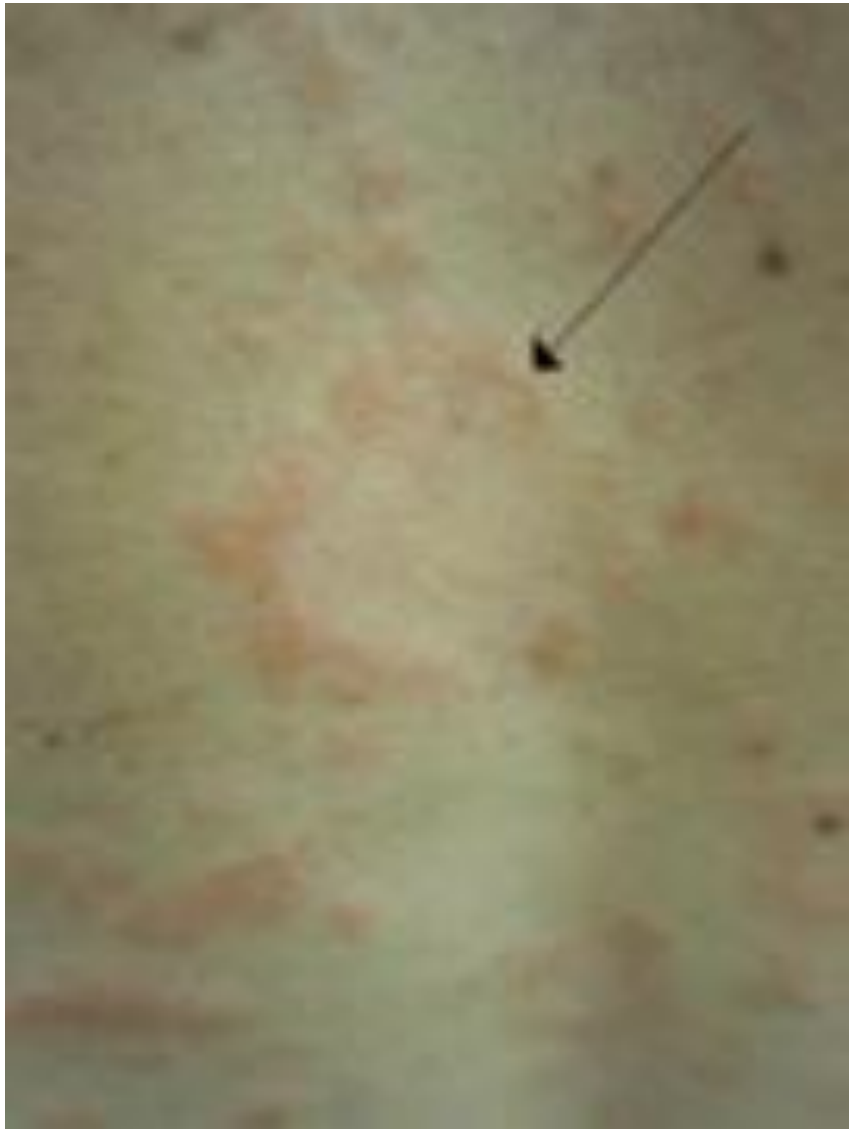












Diagnosis

What does it look like?

Diagnosis

What does it look like?

Slightly raised, dry/flaky, faint red

Diagnosis

What does it look like?

Slightly raised, dry/flaky, faint red

Torso-predominant, Christmas tree pattern, herald patch

Diagnosis?

Diagnosis

<u>What does it look like?</u>

Slightly raised, dry/flaky, faint red

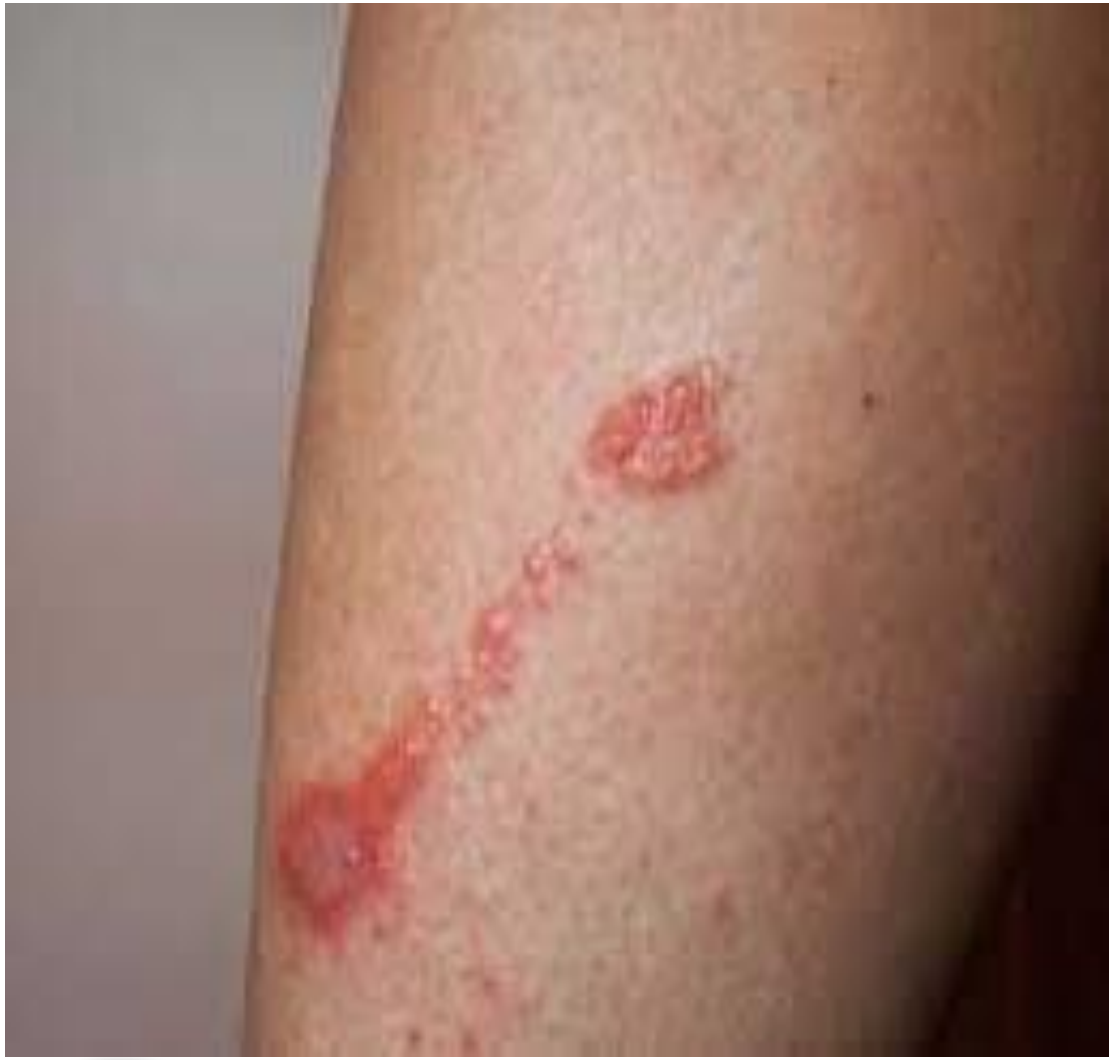
Torso-predominant, Christmas tree pattern, herald patch

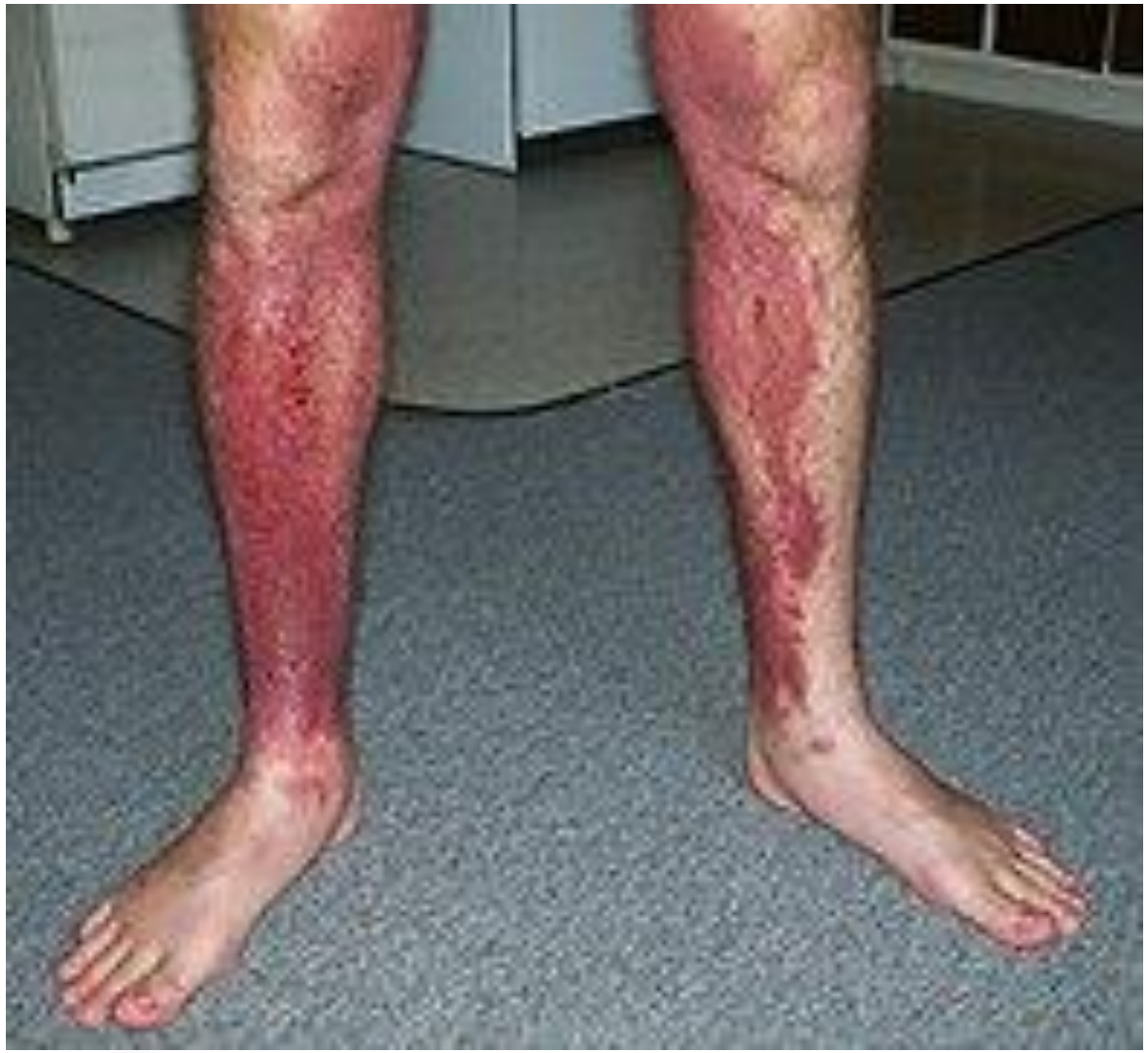
<u>Diagnosis?</u>

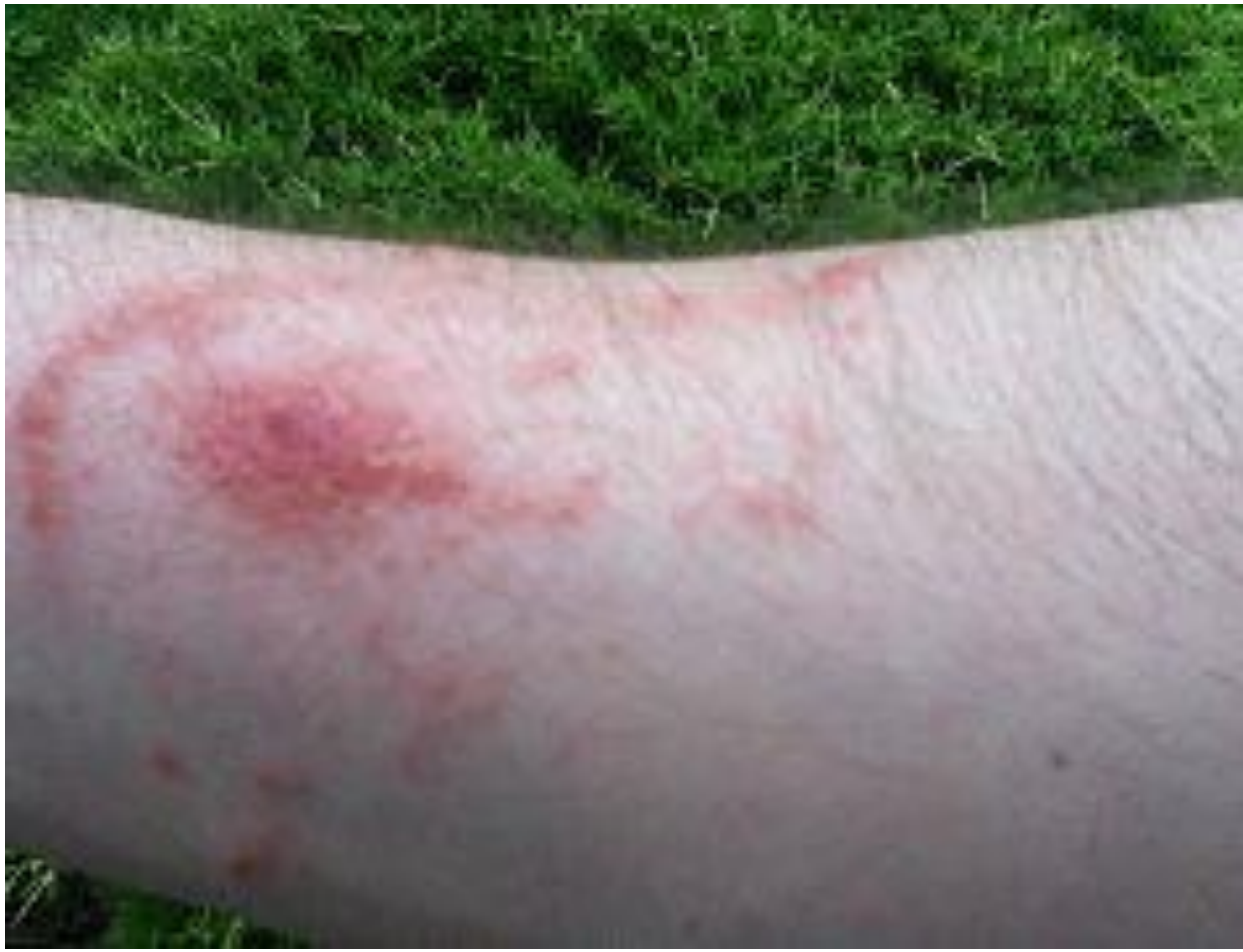
Pityriasis rosea

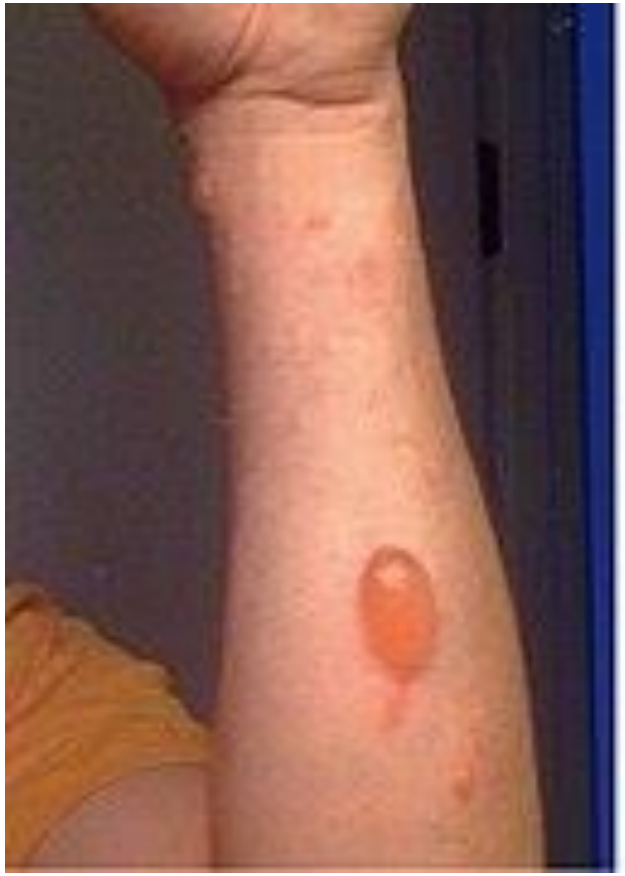
Treatment – Pityriasis rosea

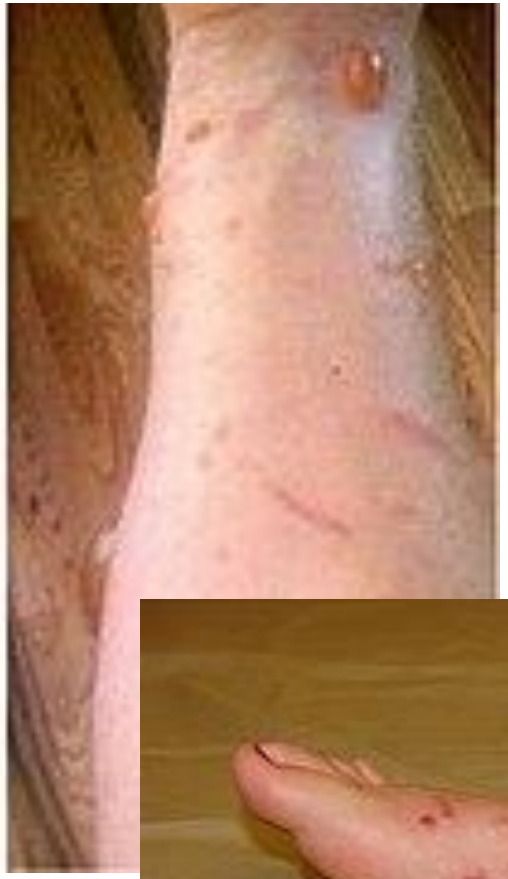
- Self-limited, 6-8 weeks (post-viral/med/vaccine) – 69% flu-like prodrome
- Cautious sun exposure
- Emollients/moisturization
- Antihistamines, anti-pruritics prn (25% severe)
- Steroids rarely needed
- Consider acyclovir for severe cases (HHV 6 and 7?)

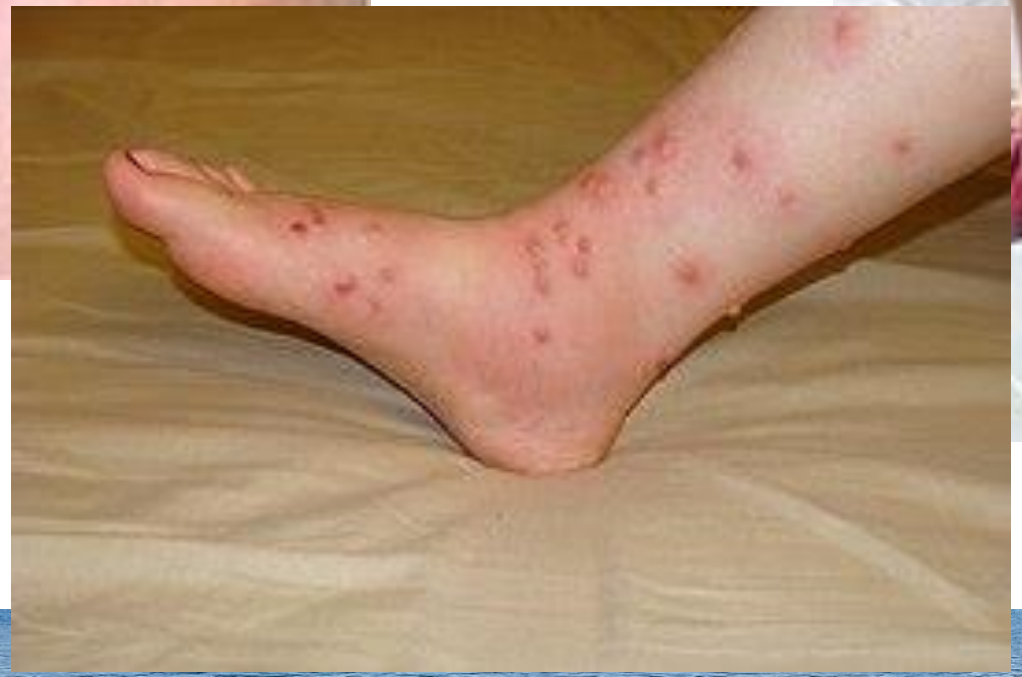


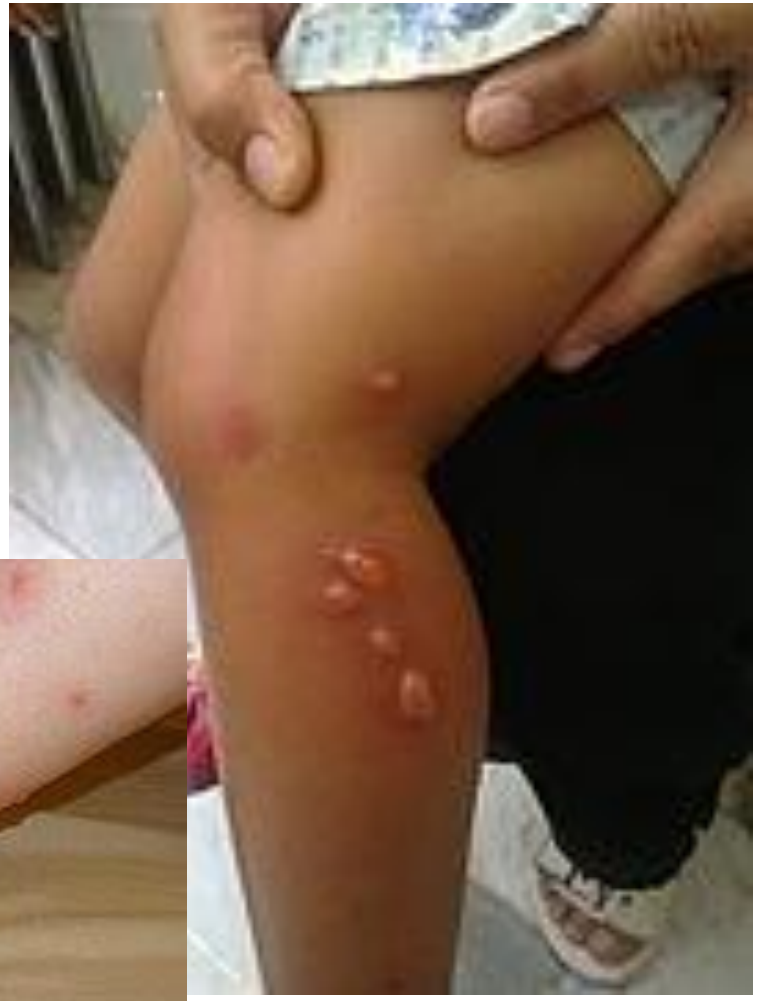












Diagnosis

What does it look like?

Diagnosis

What does it look like?

Inflamed, moist → weepy, vesiculobullous

Diagnosis?

Diagnosis

What does it look like?

Inflamed, moist → weepy, vesiculobullous

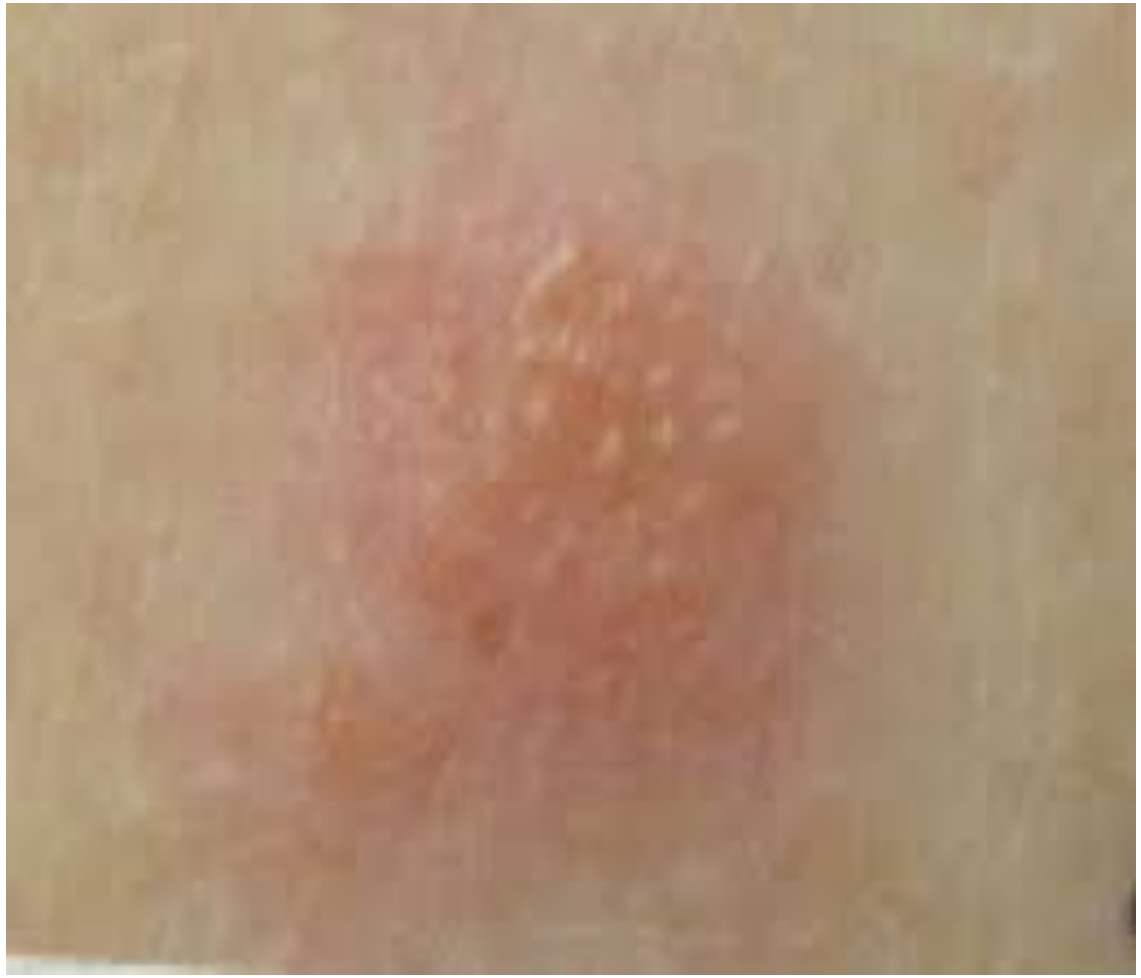
Diagnosis?

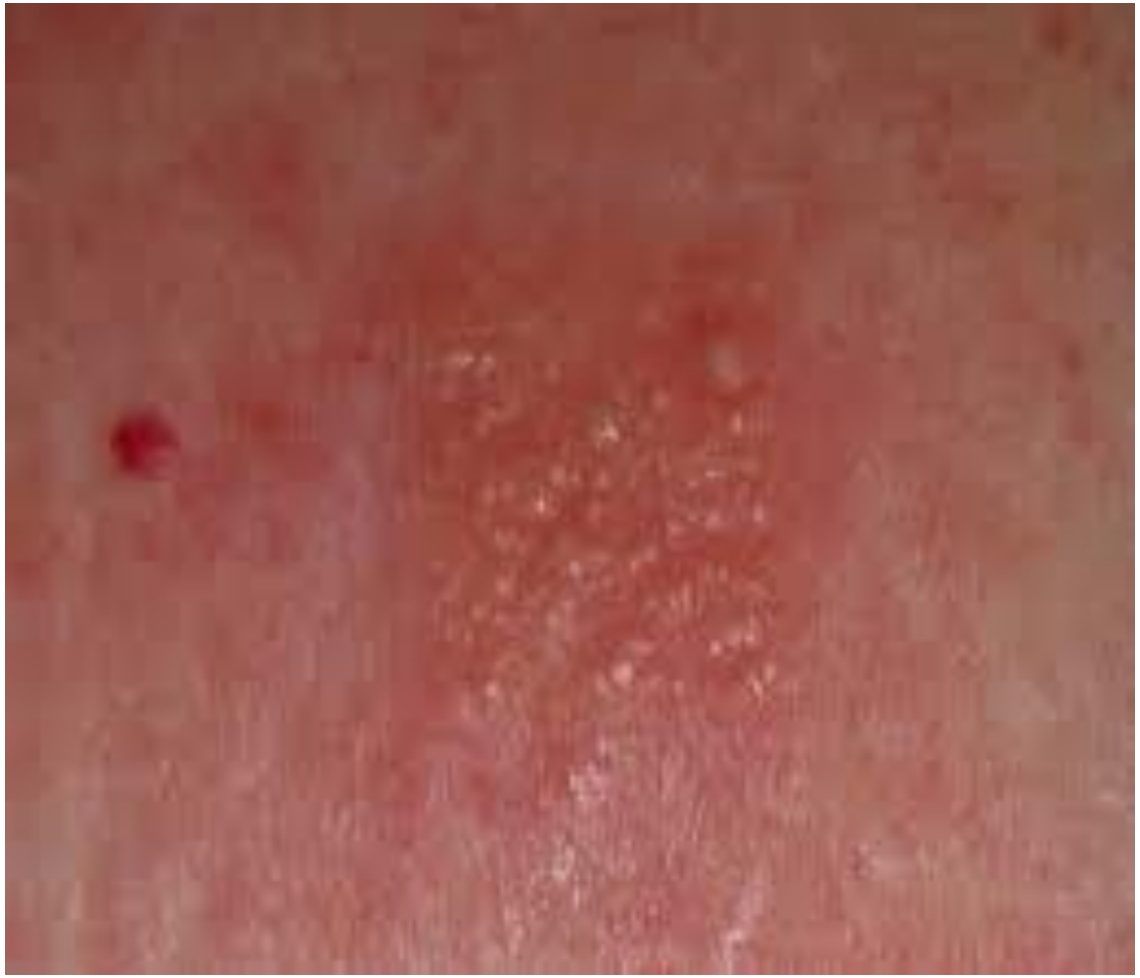
Poison oak, ivy, sumac

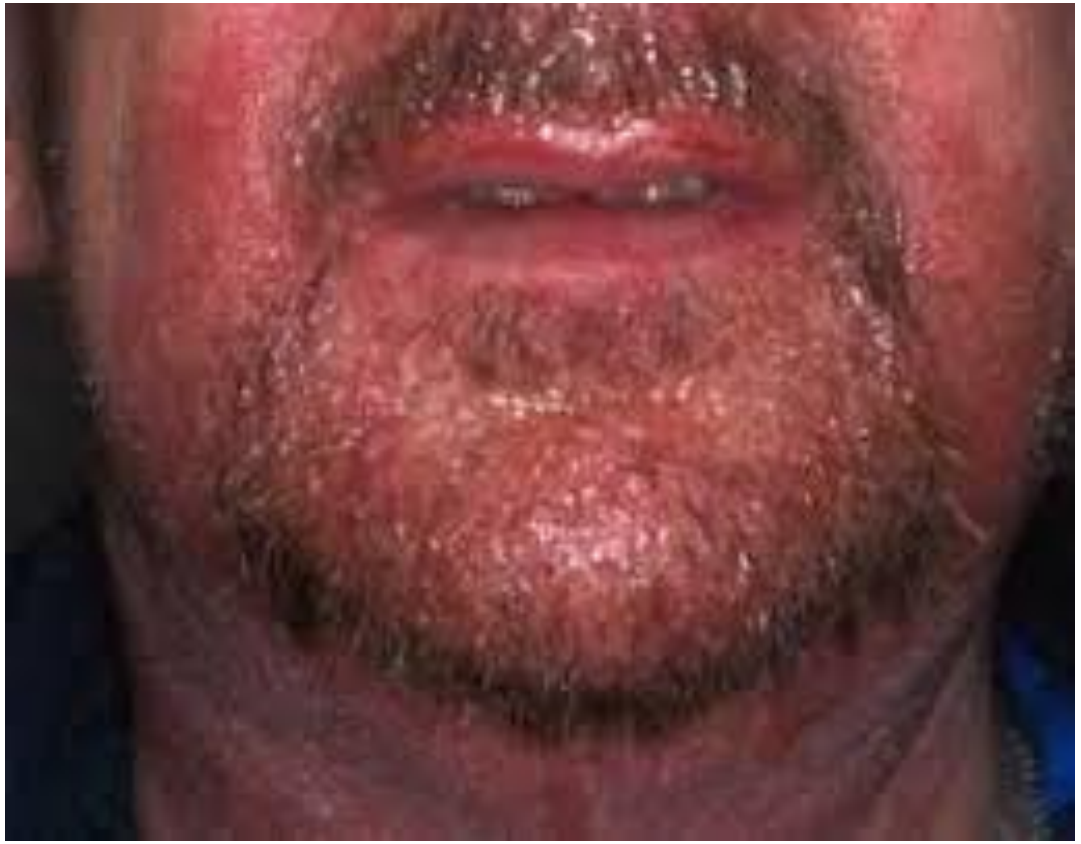
Rhus or *Toxicodendron* dermatopathy

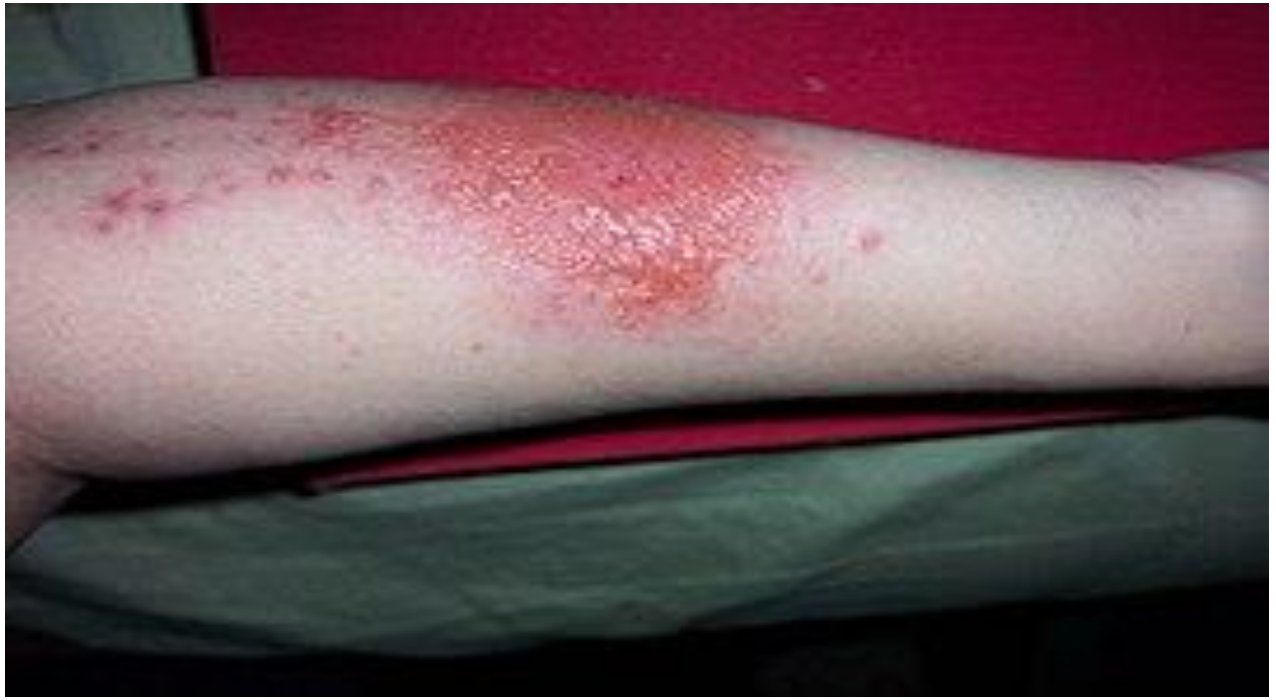
Treatment – Poison oak, etc

- Drying agents
  - Calamine (ferric oxide) – avoid topical diphenhydramine
  - Colloidal oatmeal
- Anti-pruritics
  - Antihistamines – H1 (diphenhydramine, hydroxyzine), newer generation (cetirizine, fexofenadine, loratadine, desloratadine); H2 blockers less effective (pruritis = H1)
  - Consider doxepin for cases refractory to antihistamines
- Sun avoidance
- Topical or PO steroids (usually $\geq$ 2 weeks)









Diagnosis

What does it look like?

Diagnosis?

Diagnosis

What does it look like?

Inflamed, moist → weepy, vesiculobullous

Diagnosis?

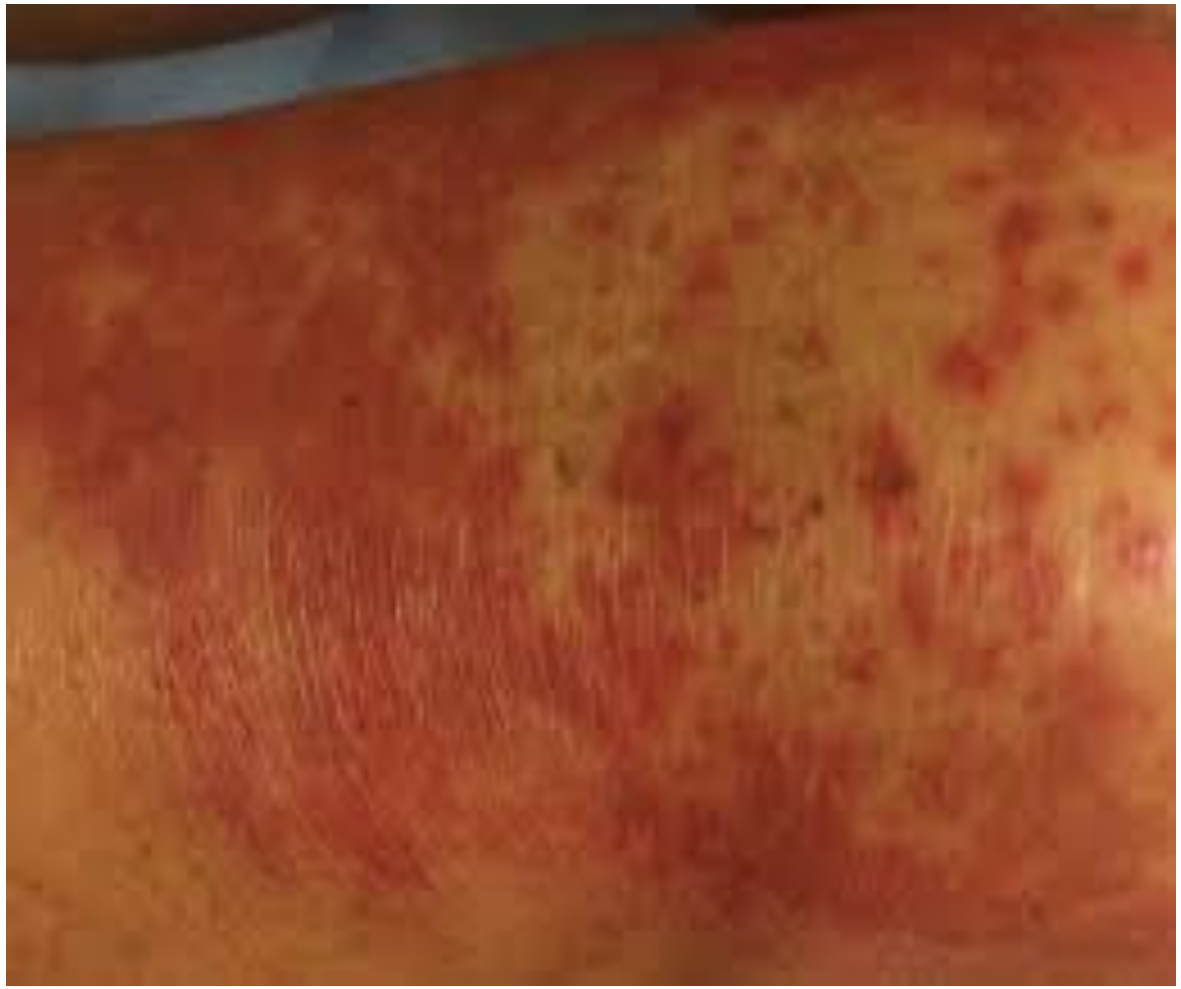
Diagnosis

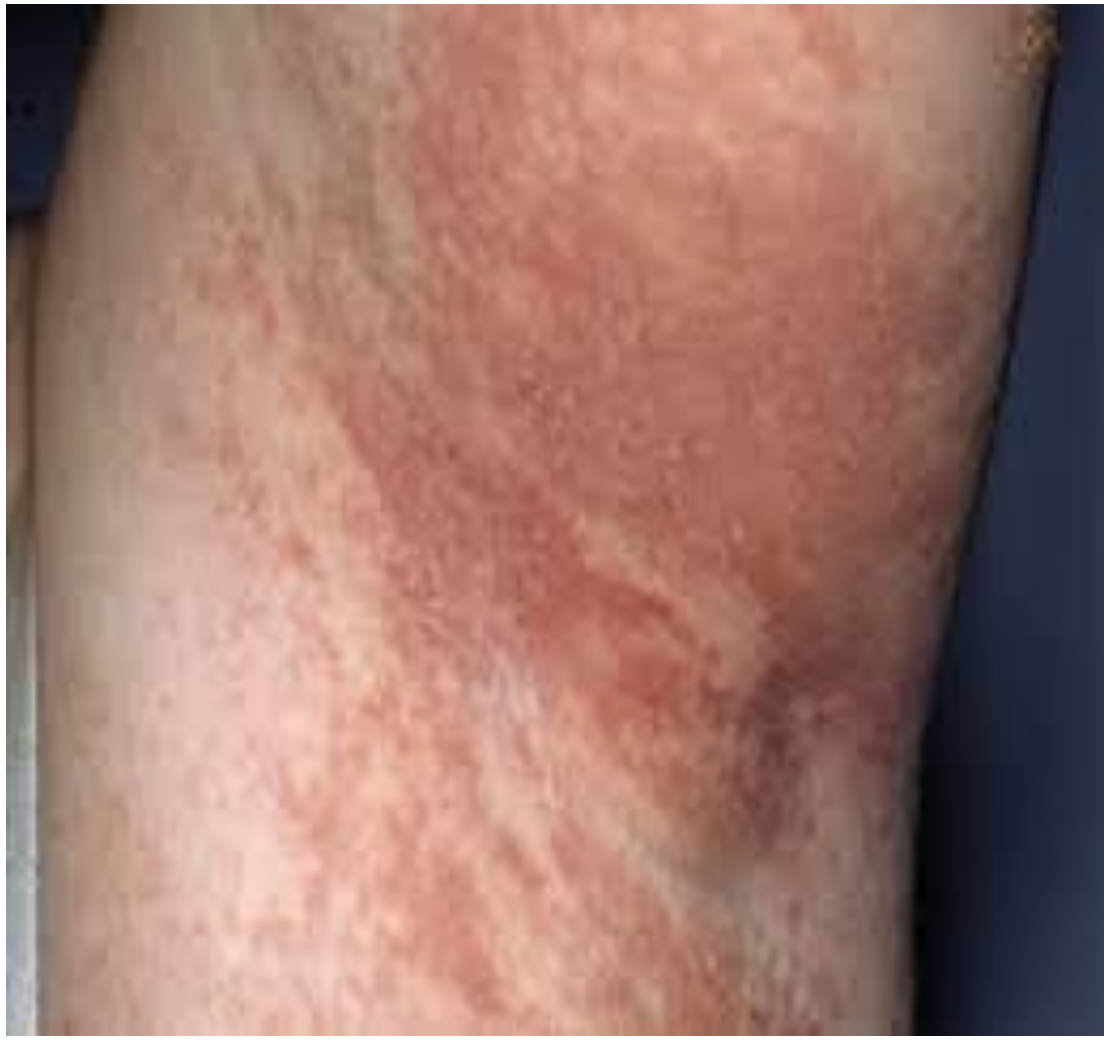
What does it look like?

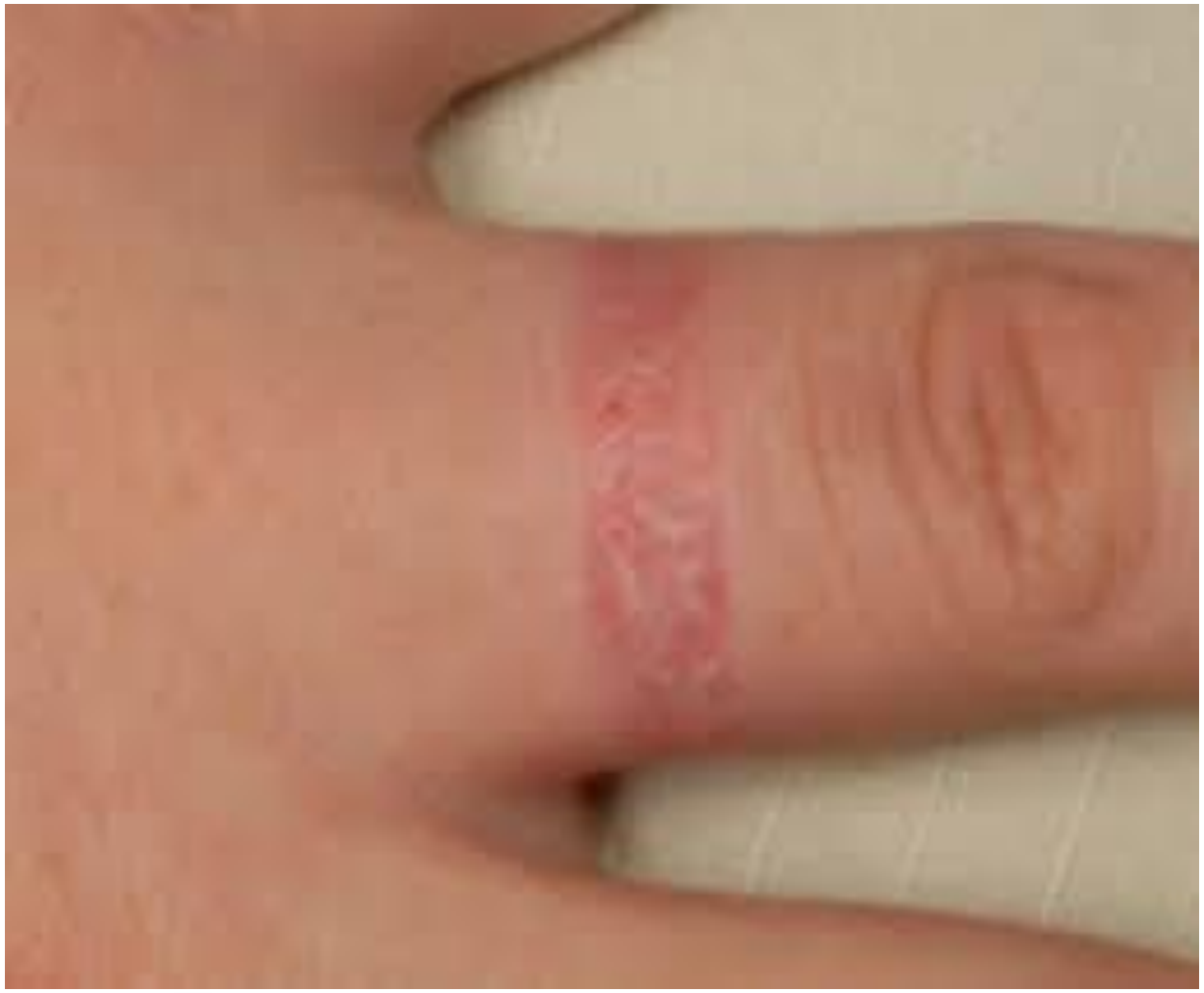
Inflamed, moist → weepy, vesiculobullous

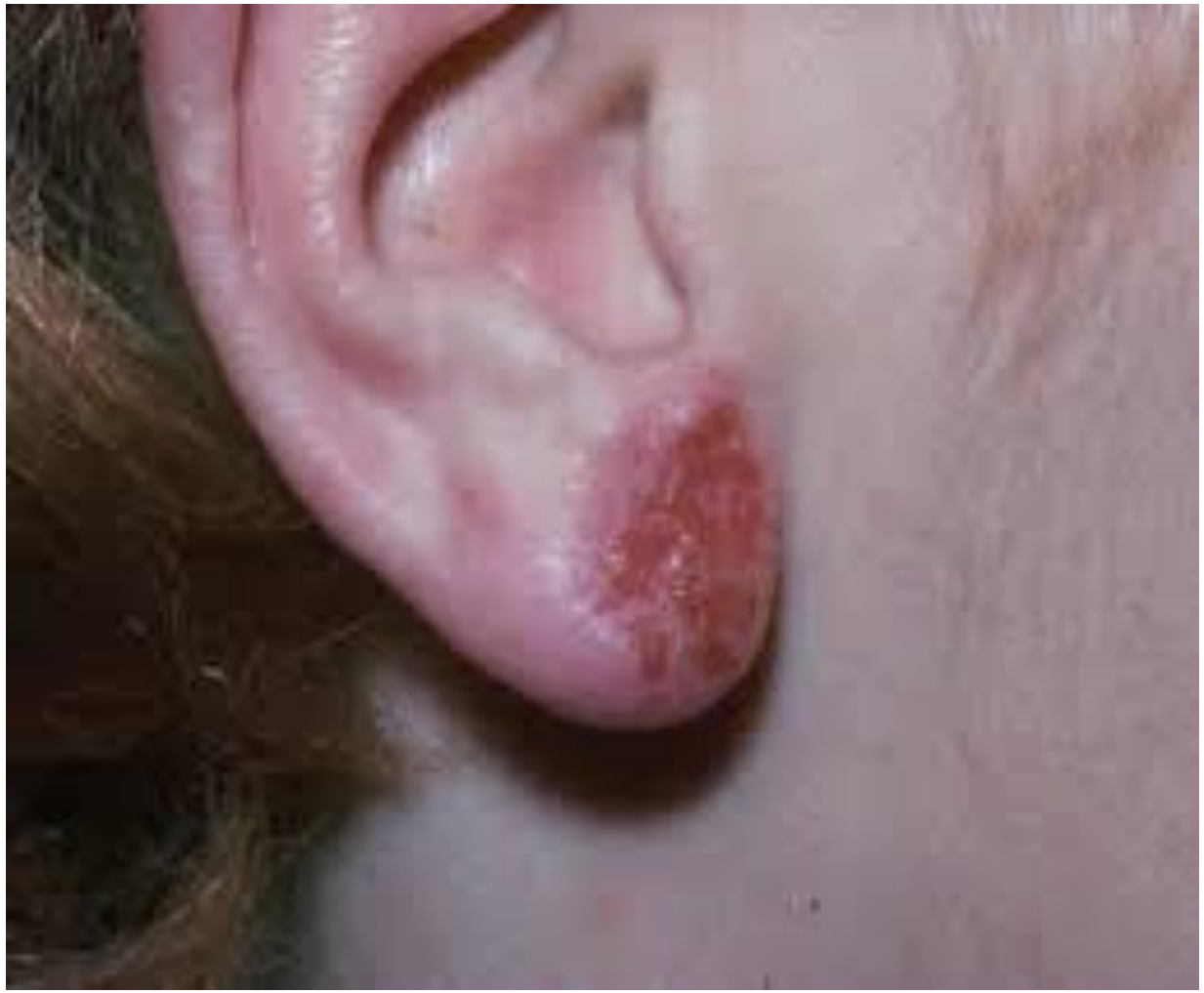
Diagnosis?

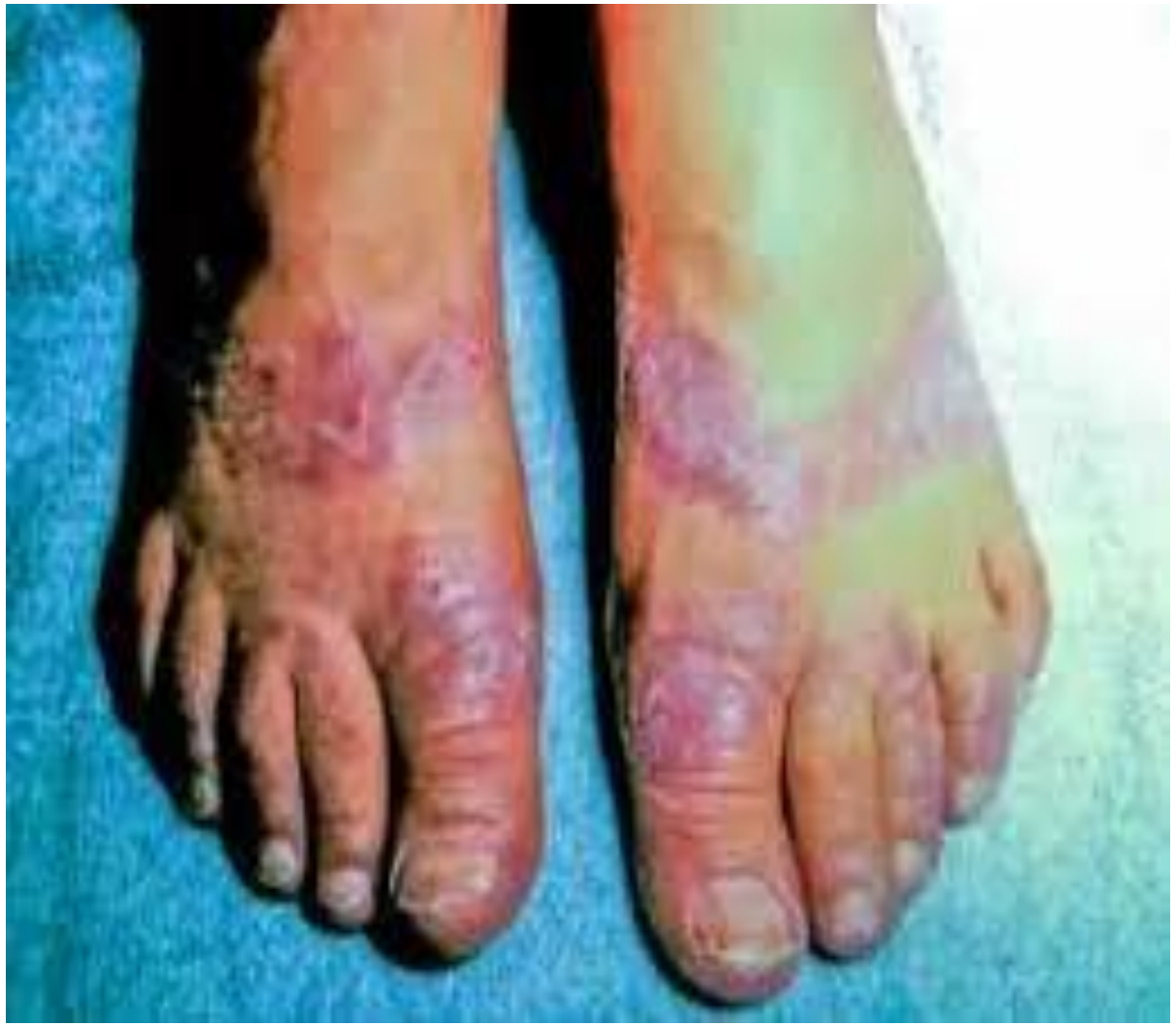
Contact dermatitis

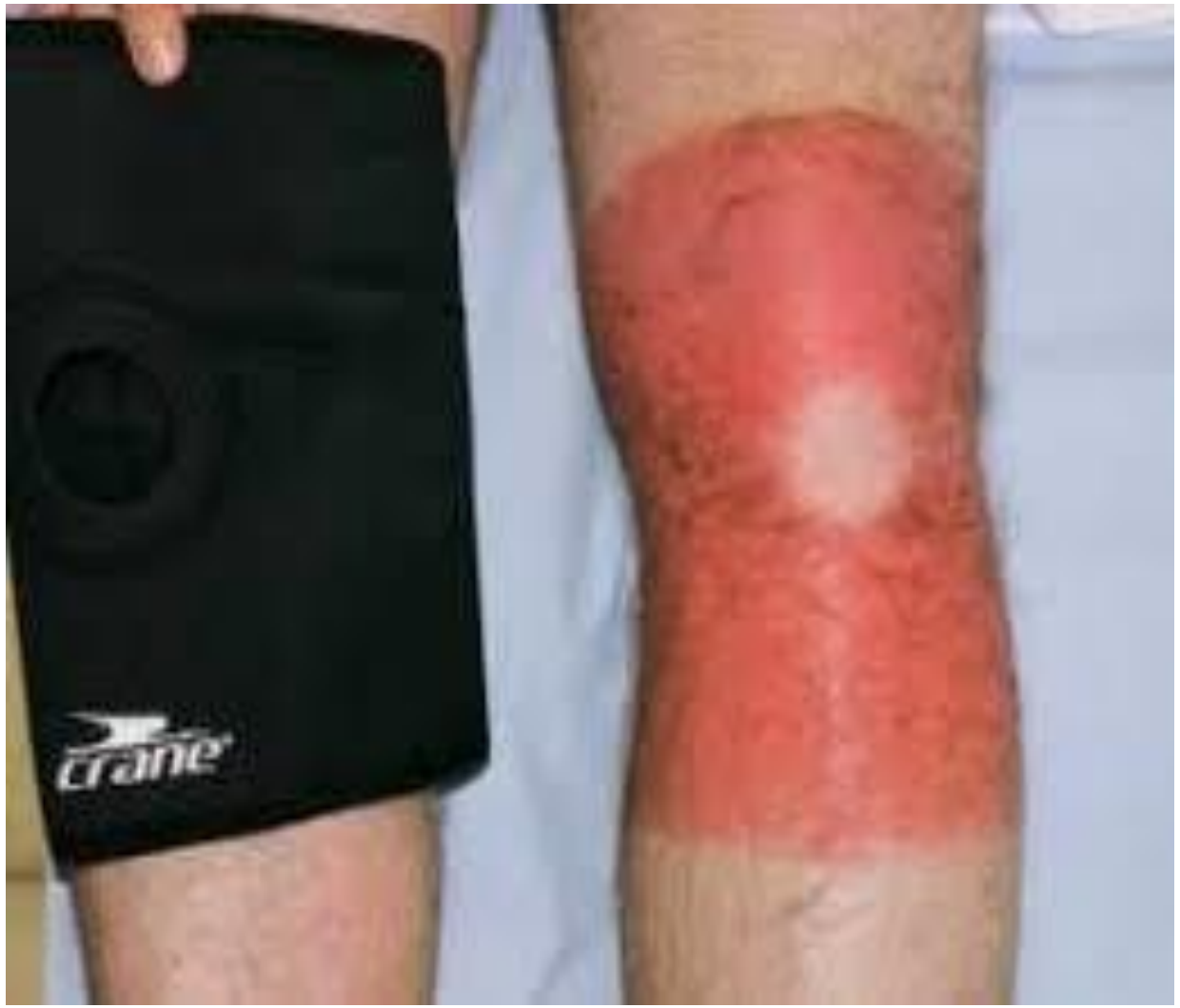


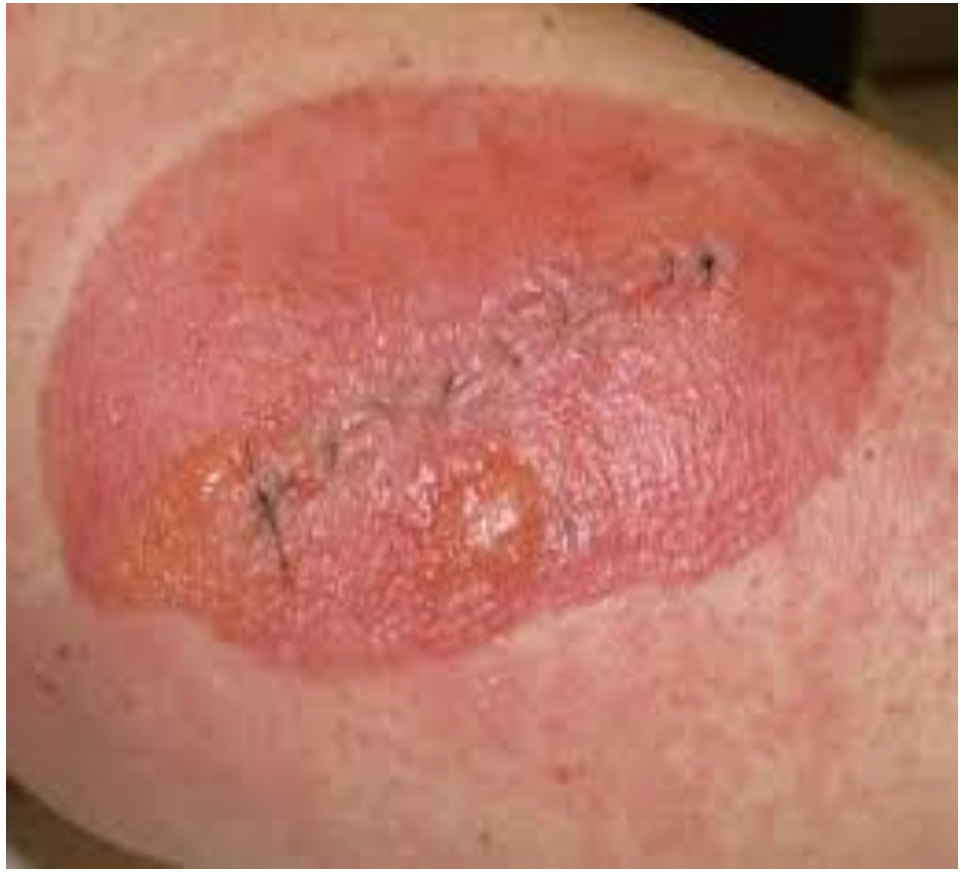






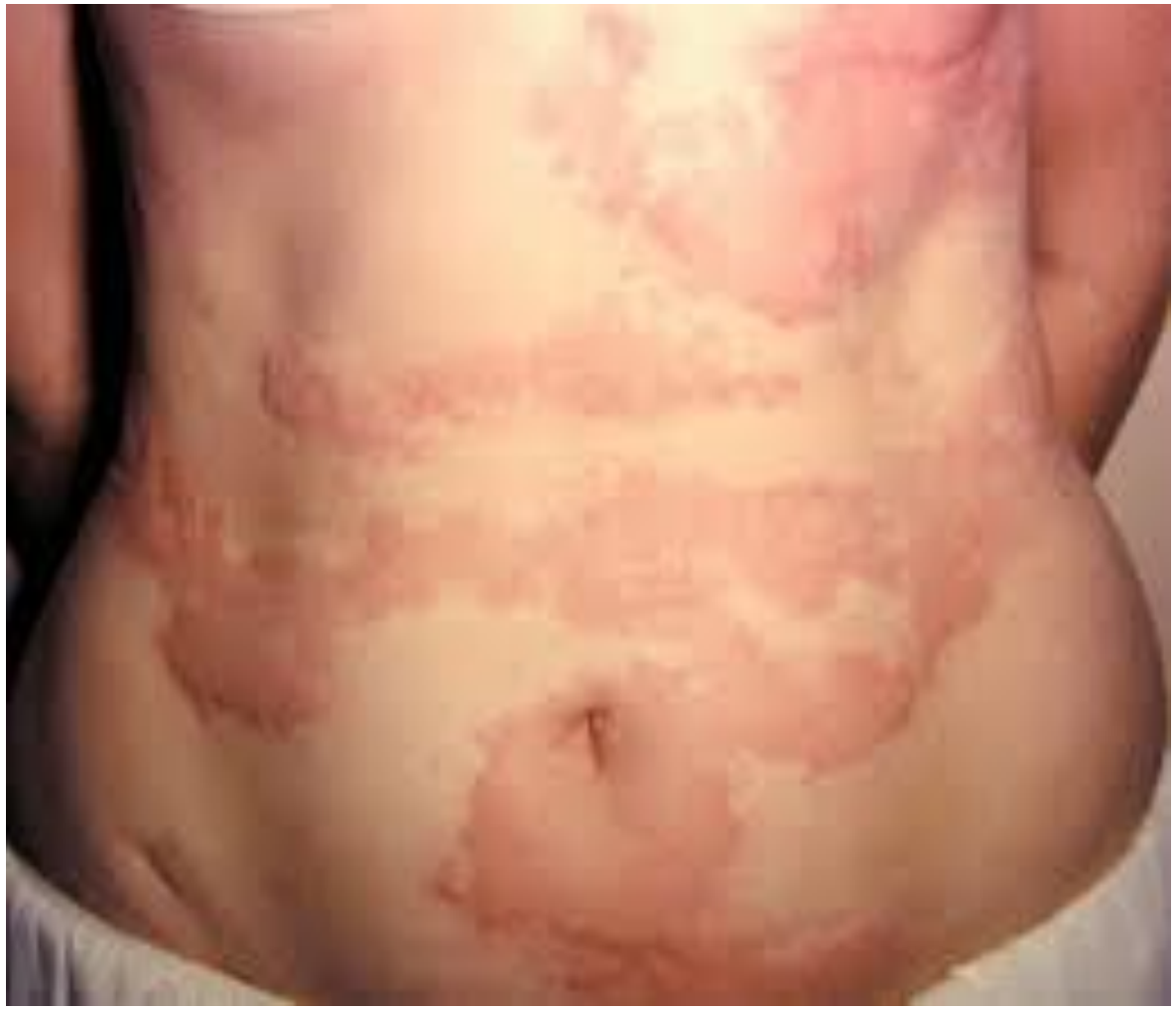


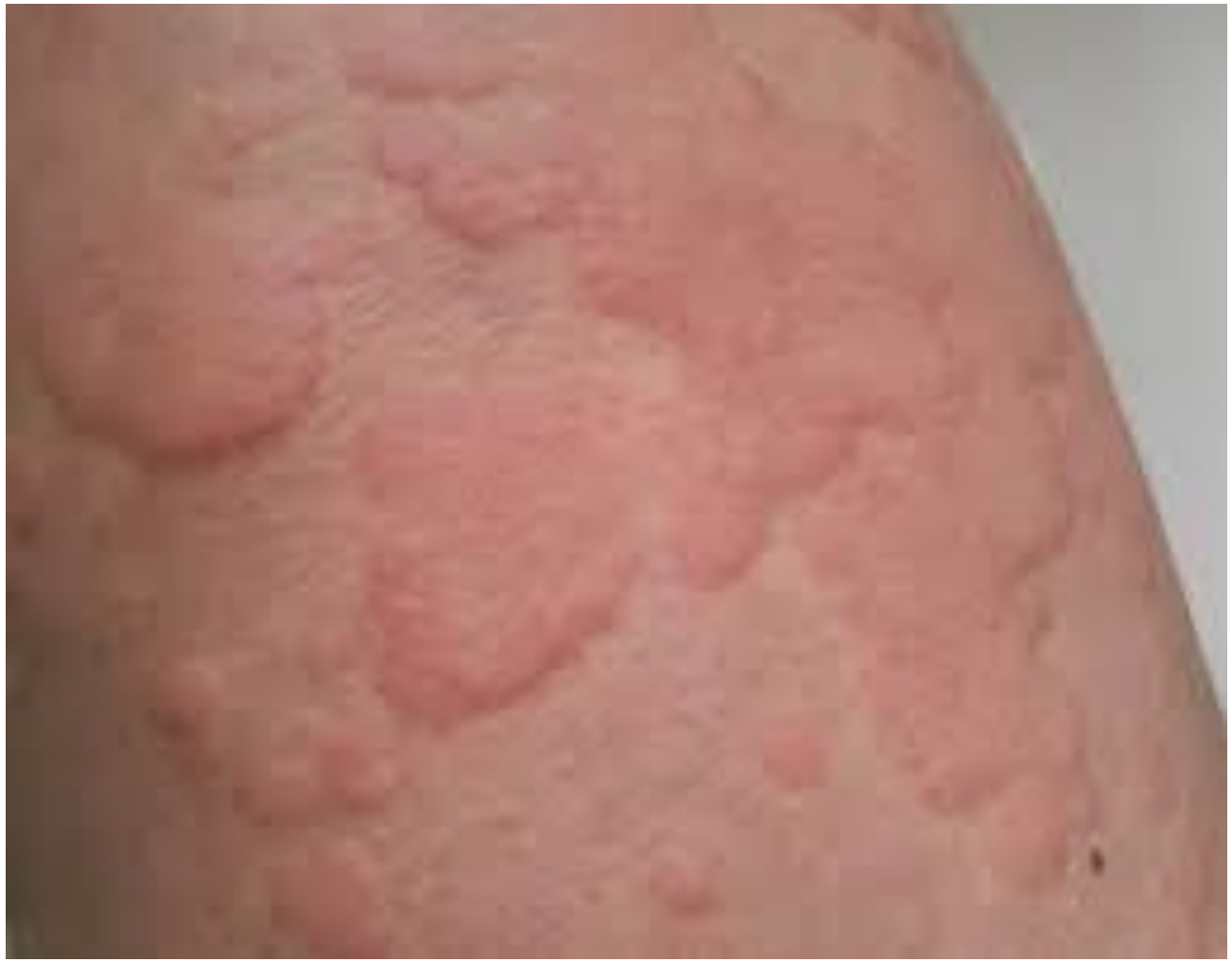


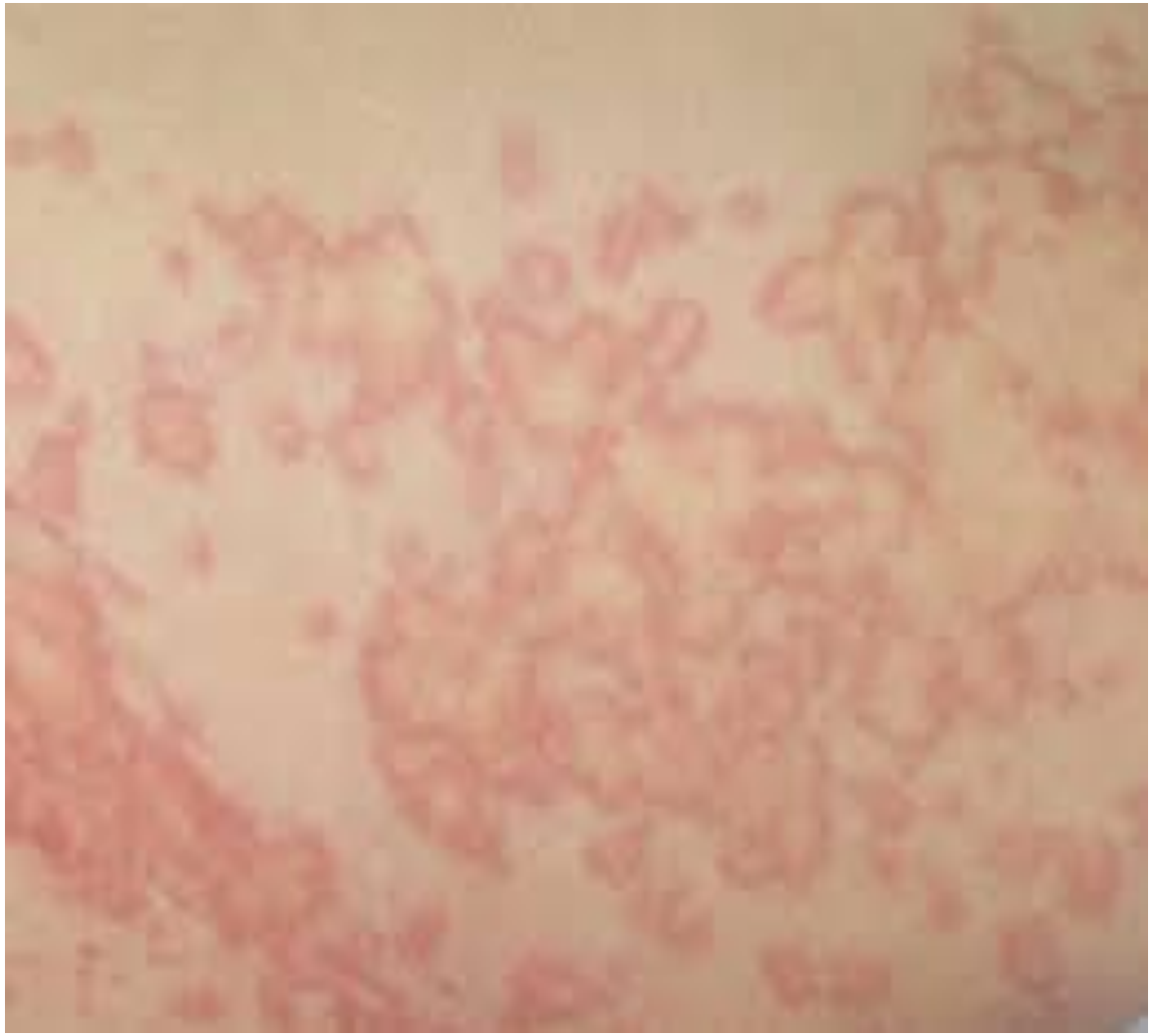


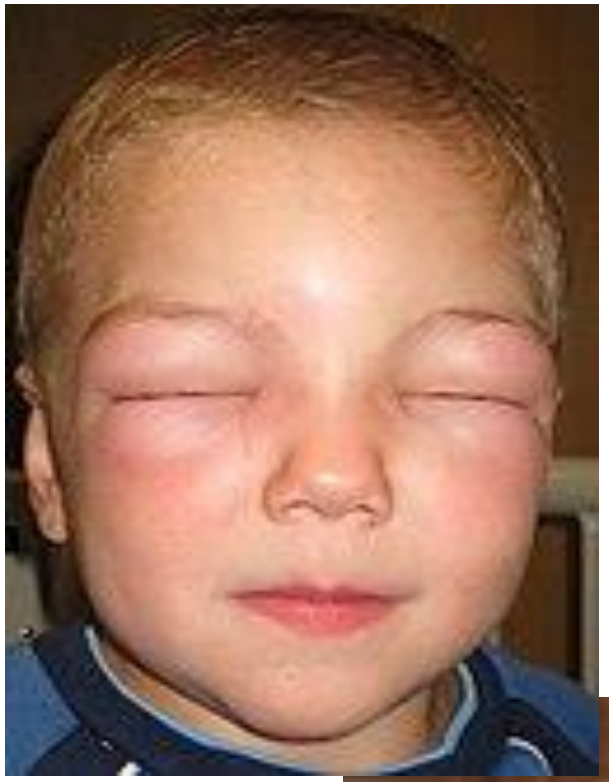
Treatment – Contact dermatitis

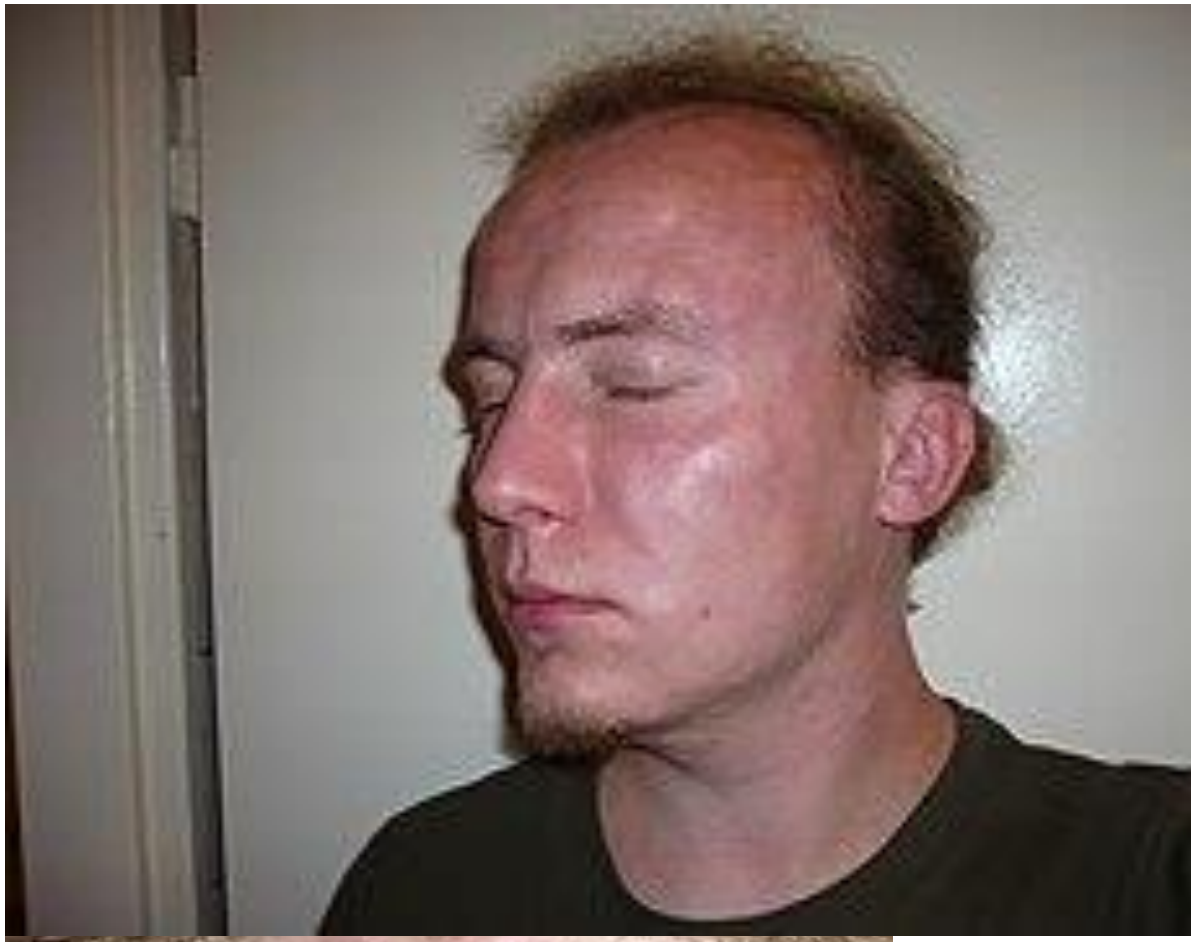
- Stop contact with offending substance
- Drying agents
  - Calamine (ferric oxide) – avoid topical diphenhydramine
  - Colloidal oatmeal
- Anti-pruritics
  - Antihistamines – H1 (diphenhydramine, hydroxyzine), newer generation (cetirizine, fexofenadine, loratadine, desloratadine); H2 blockers less effective (pruritis = H1)
  - Consider doxepin for cases refractory to antihistamines
- Topical or PO steroids (usually $\geq$ 2 weeks)

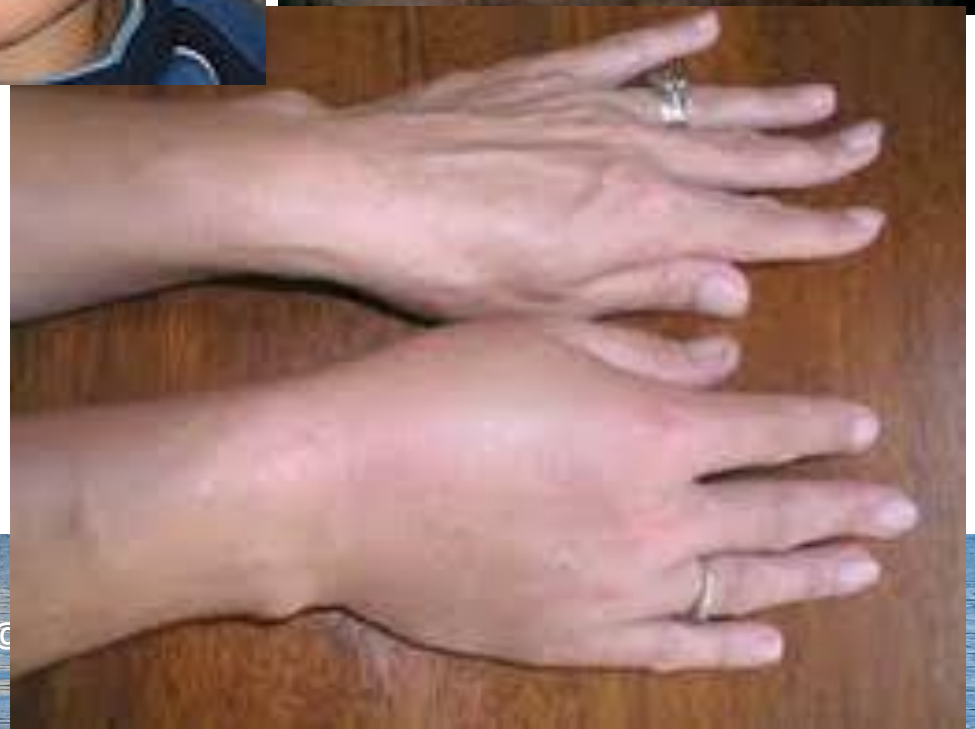












California URGENT CARE ASSOCIATION

Diagnosis

What does it look like?

Diagnosis

What does it look like?

Dry, raised “wheals”, pink → red

Diagnosis?

Diagnosis

What does it look like?

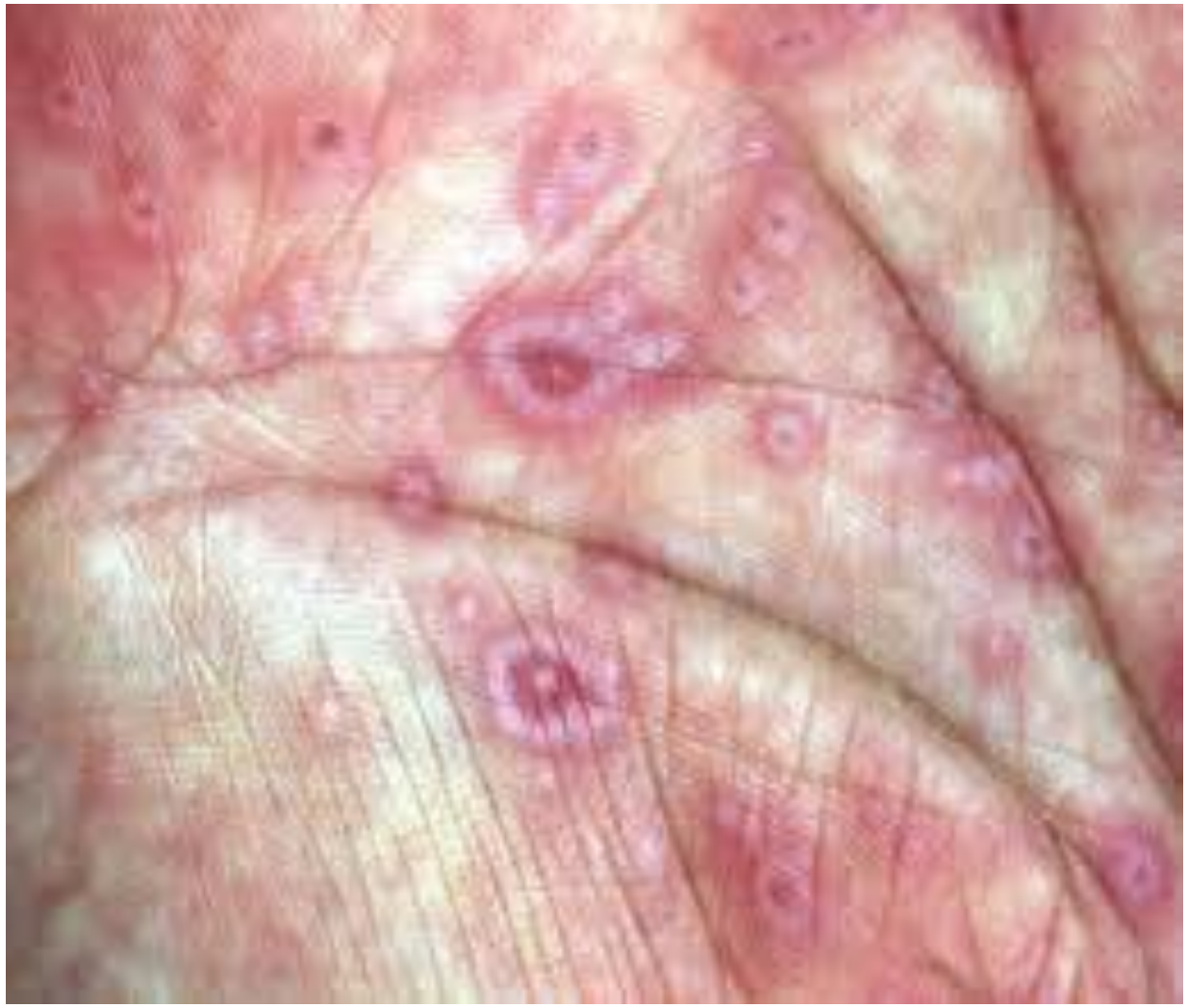
Dry, raised “wheals”, pink → red

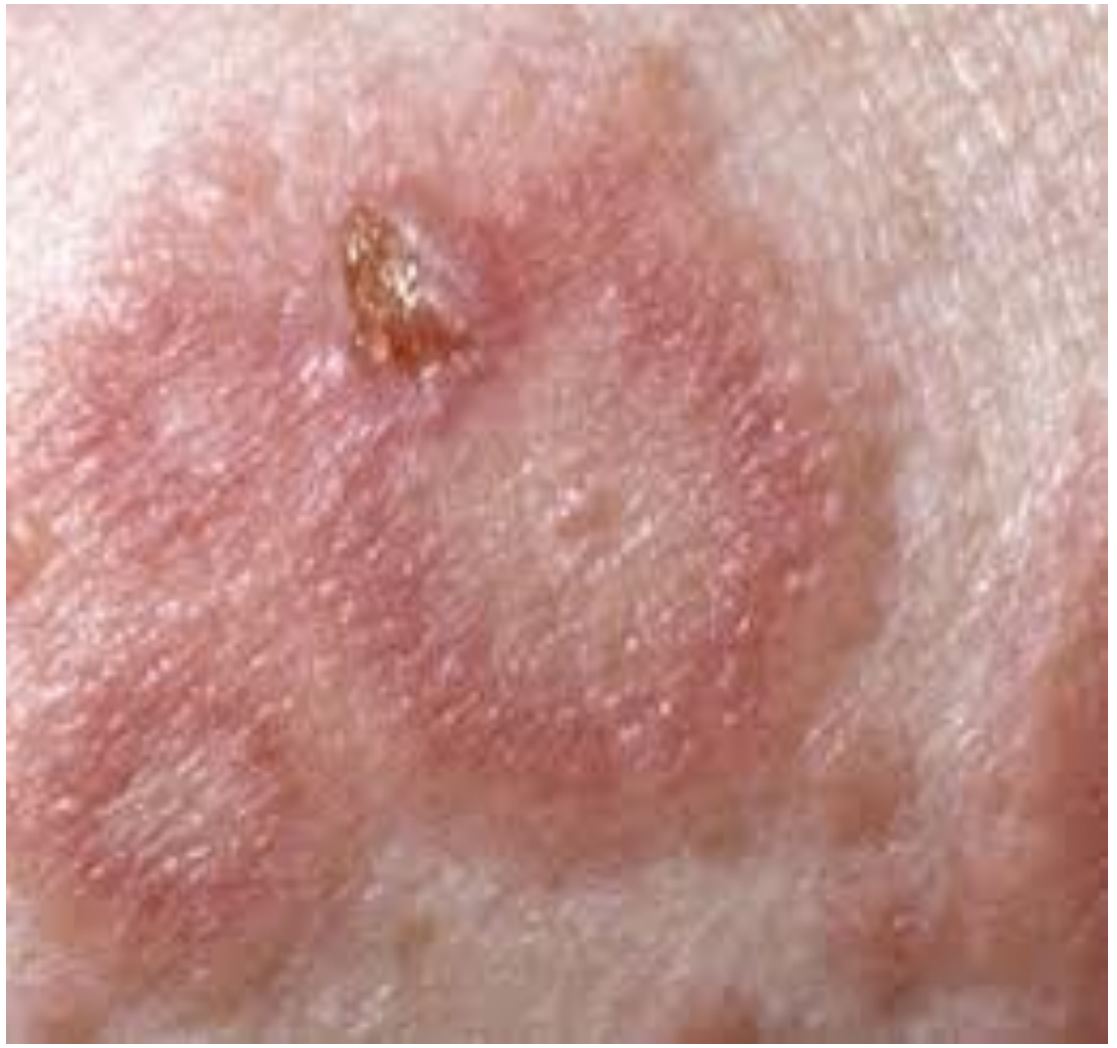
Diagnosis?

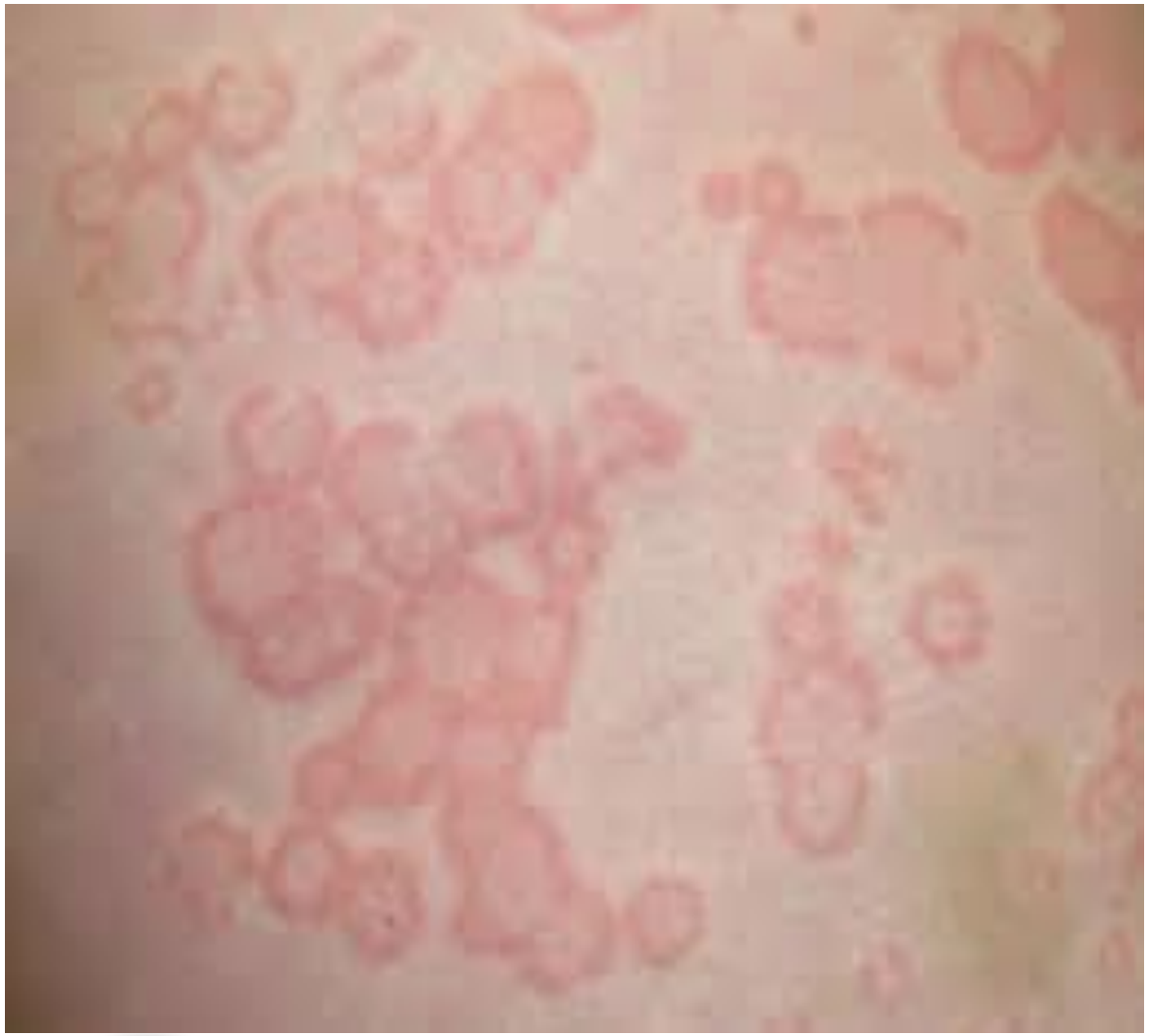
Urticaria (hives)

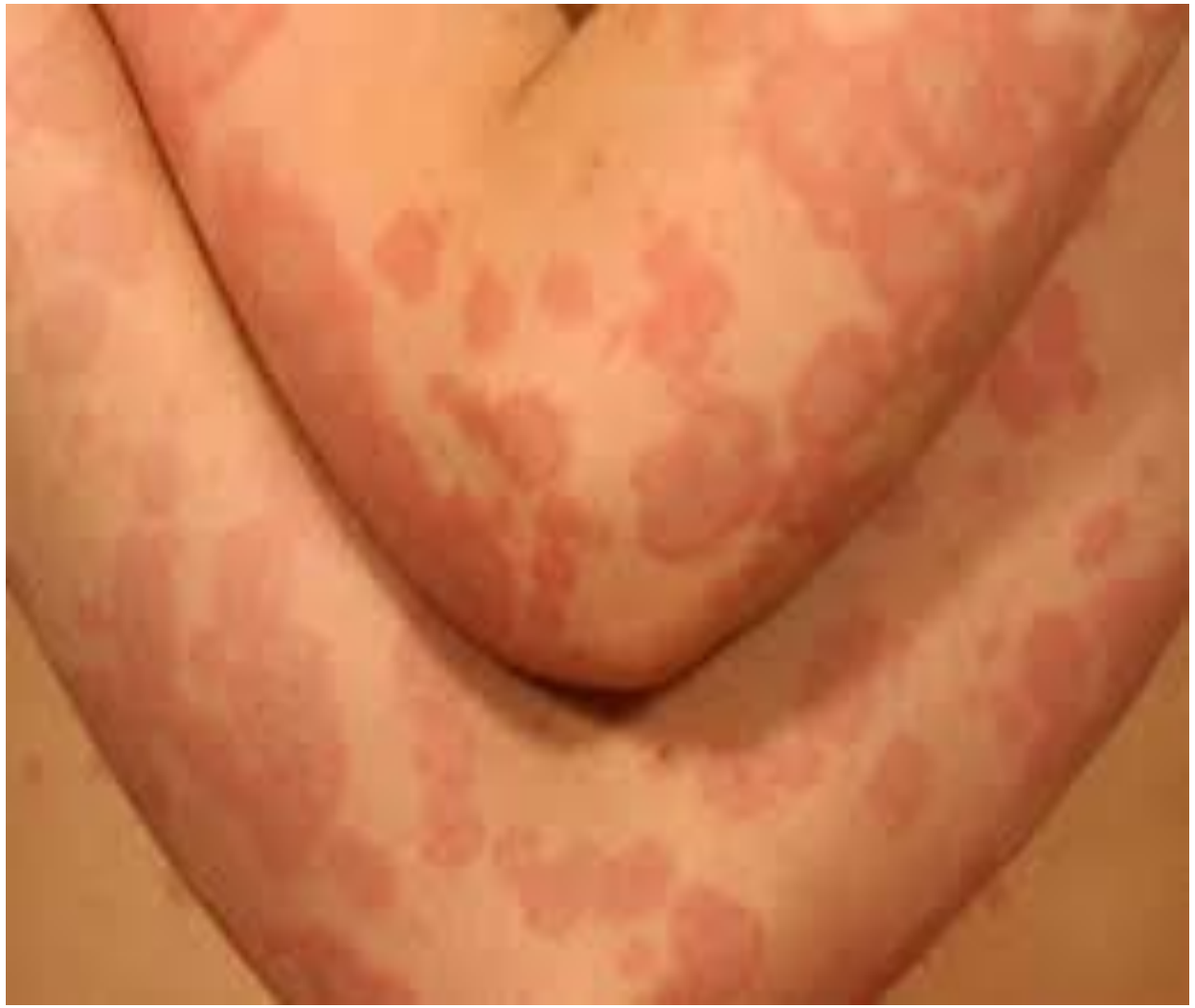
Treatment – Urticaria/allergic reactions

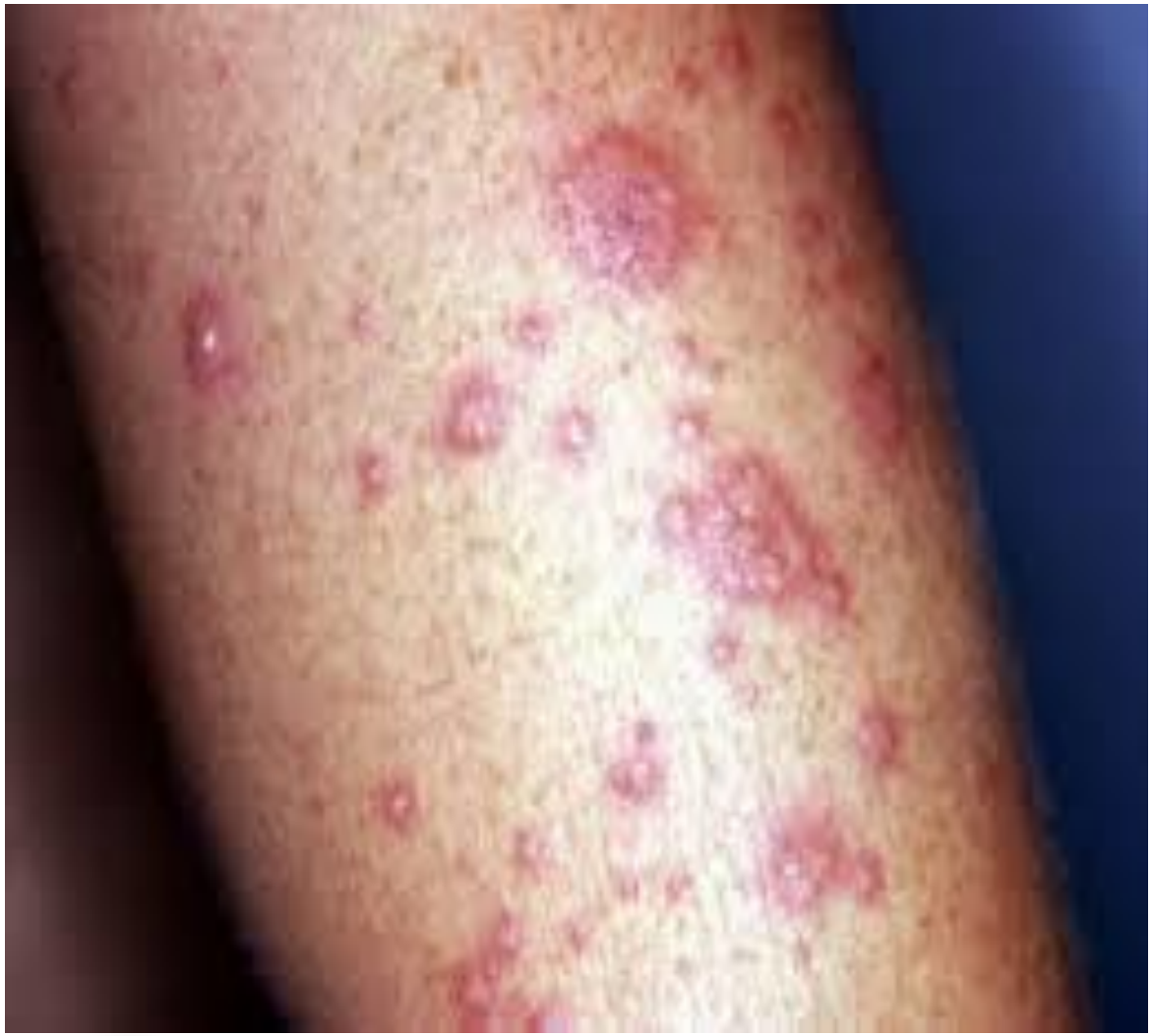
- Topicals?
- Anaphylaxis → epinephrine SQ
- H1 blocker antihistamines
  - First generation
  - Second and later generation
- H2 blocker antihistamine (famotidine 20 mg BID)
- Corticosteroids?

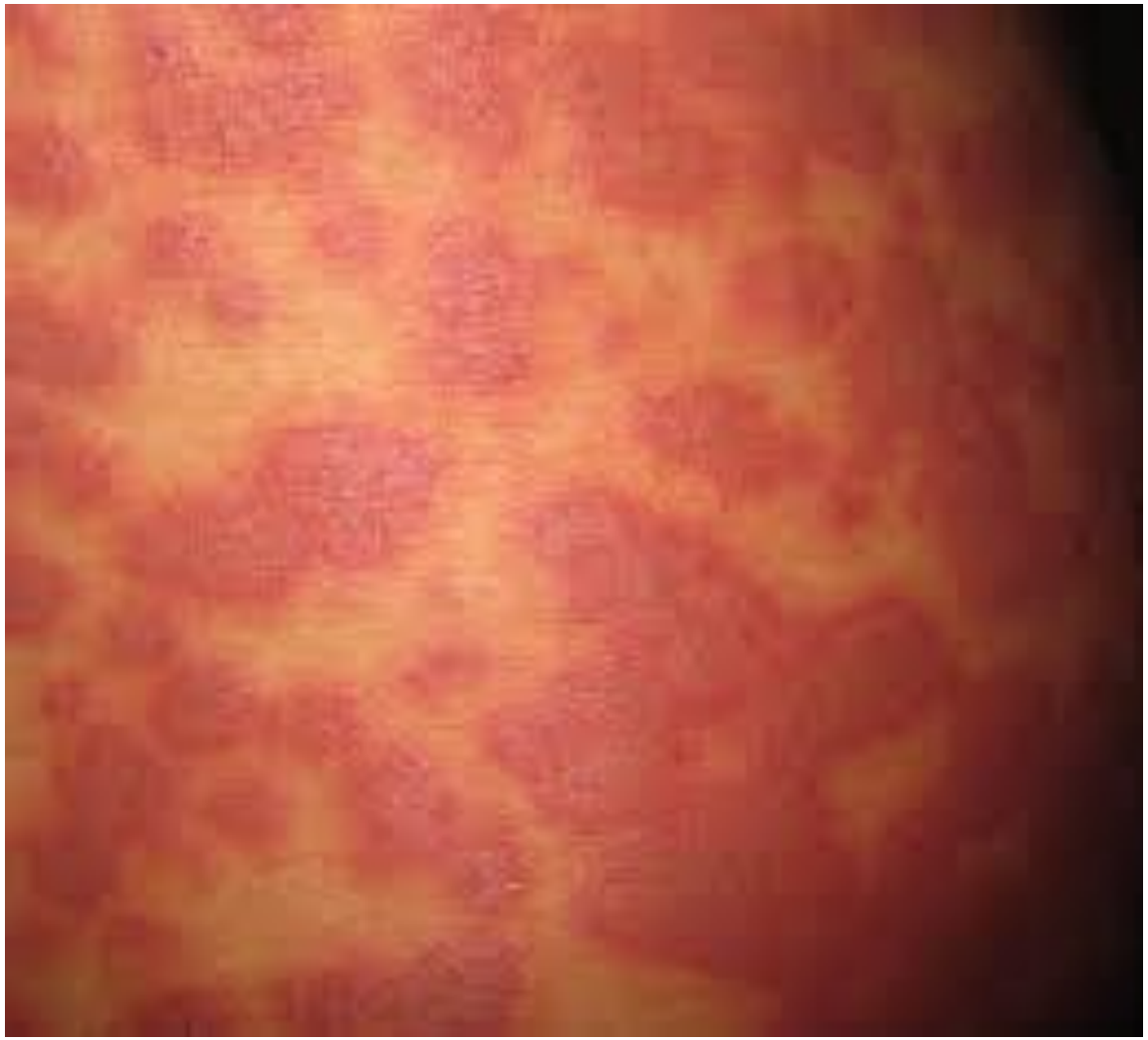












Diagnosis

What does it look like?

Diagnosis

What does it look like?

Annular, target-like, pink/red/dusky

Diagnosis?

Diagnosis

What does it look like?

Annular, target-like, pink/red/dusky

Diagnosis?

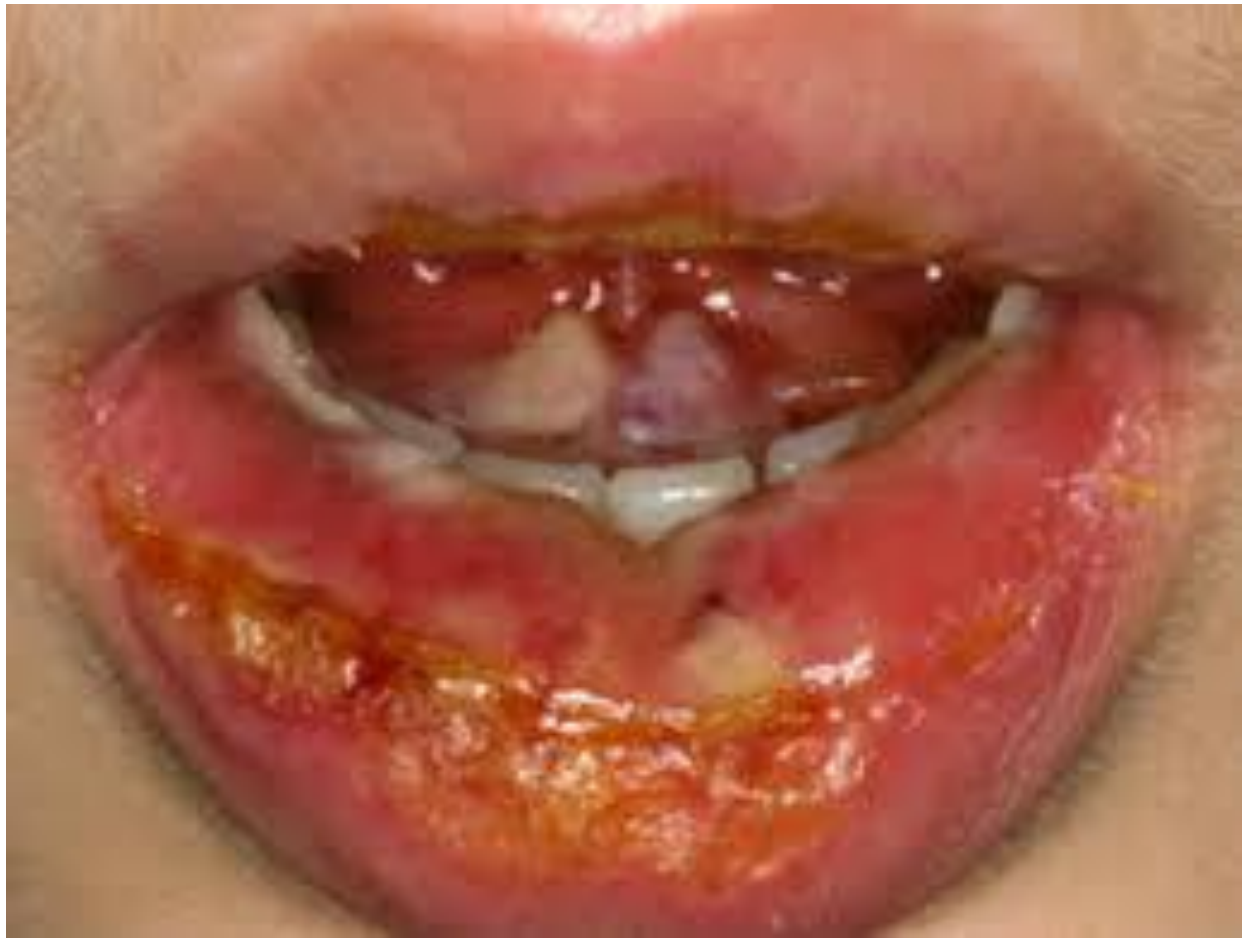
Erythema multiforme

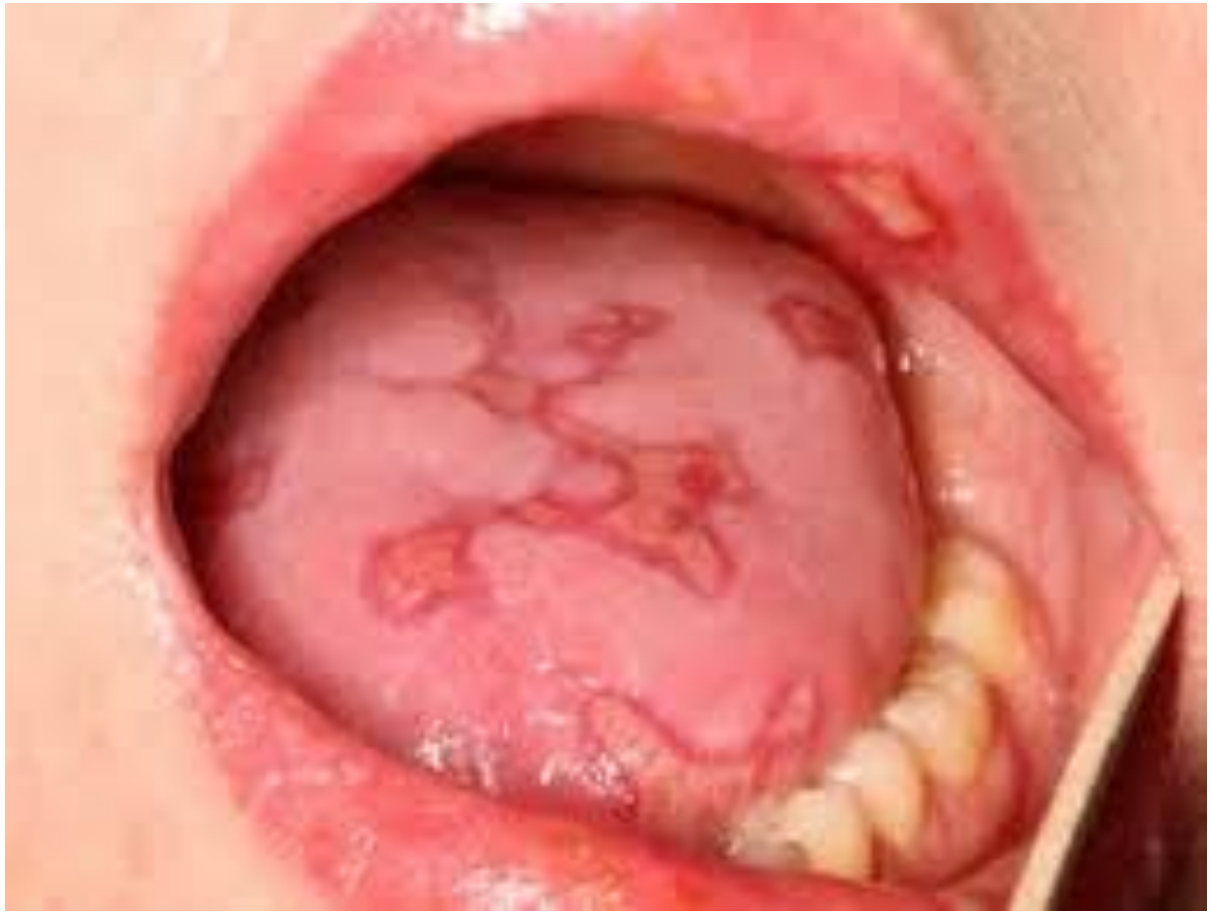
Etiology – Erythema multiforme

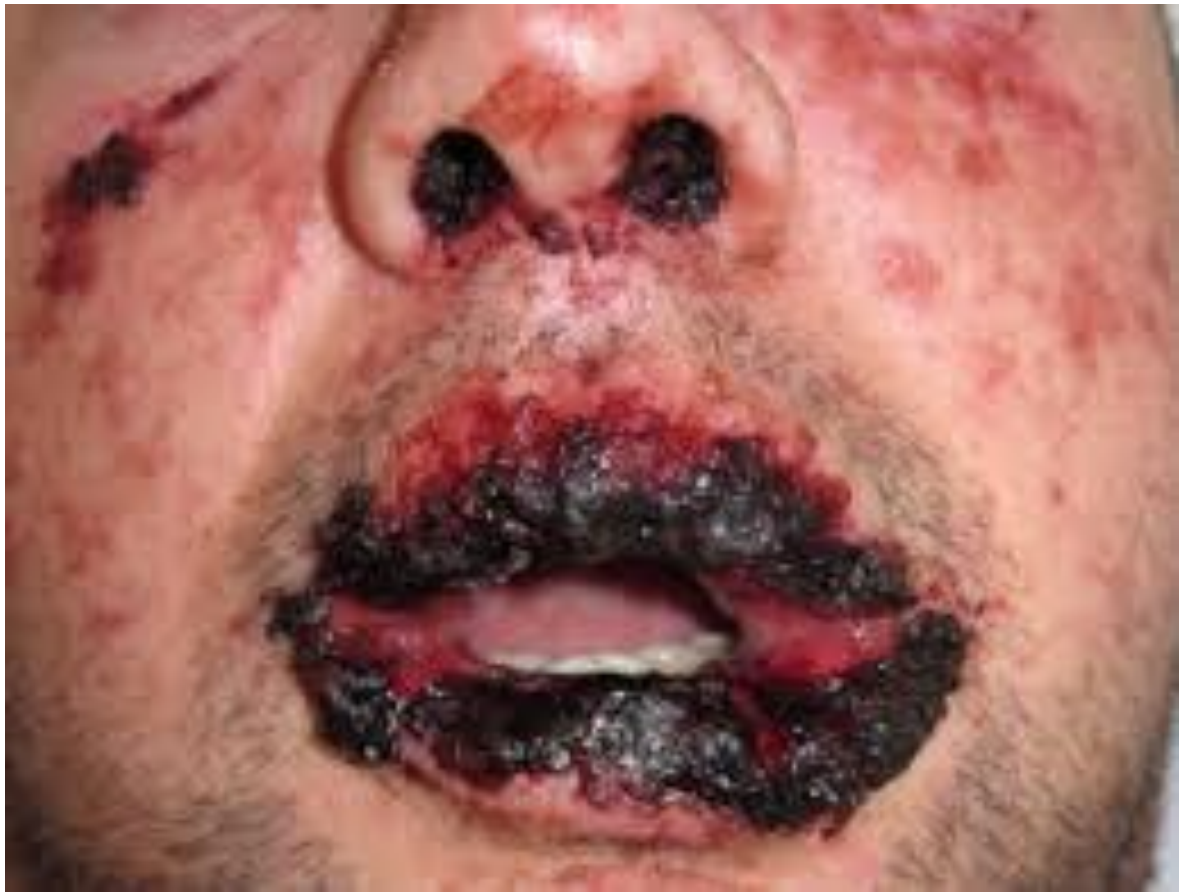
- Classically HSV-1, HSV-2, and *M. pneumoniae*
- Also adenovirus, flu, EBV, hepatitis viruses, Coxasackie, parvo B19, HIV, streptococci, and TB
- Penicillin, cephalosporins, macrolides, sulfa, TB meds, antipyretics
- Contact with herbals products, heavy metals and poison ivy

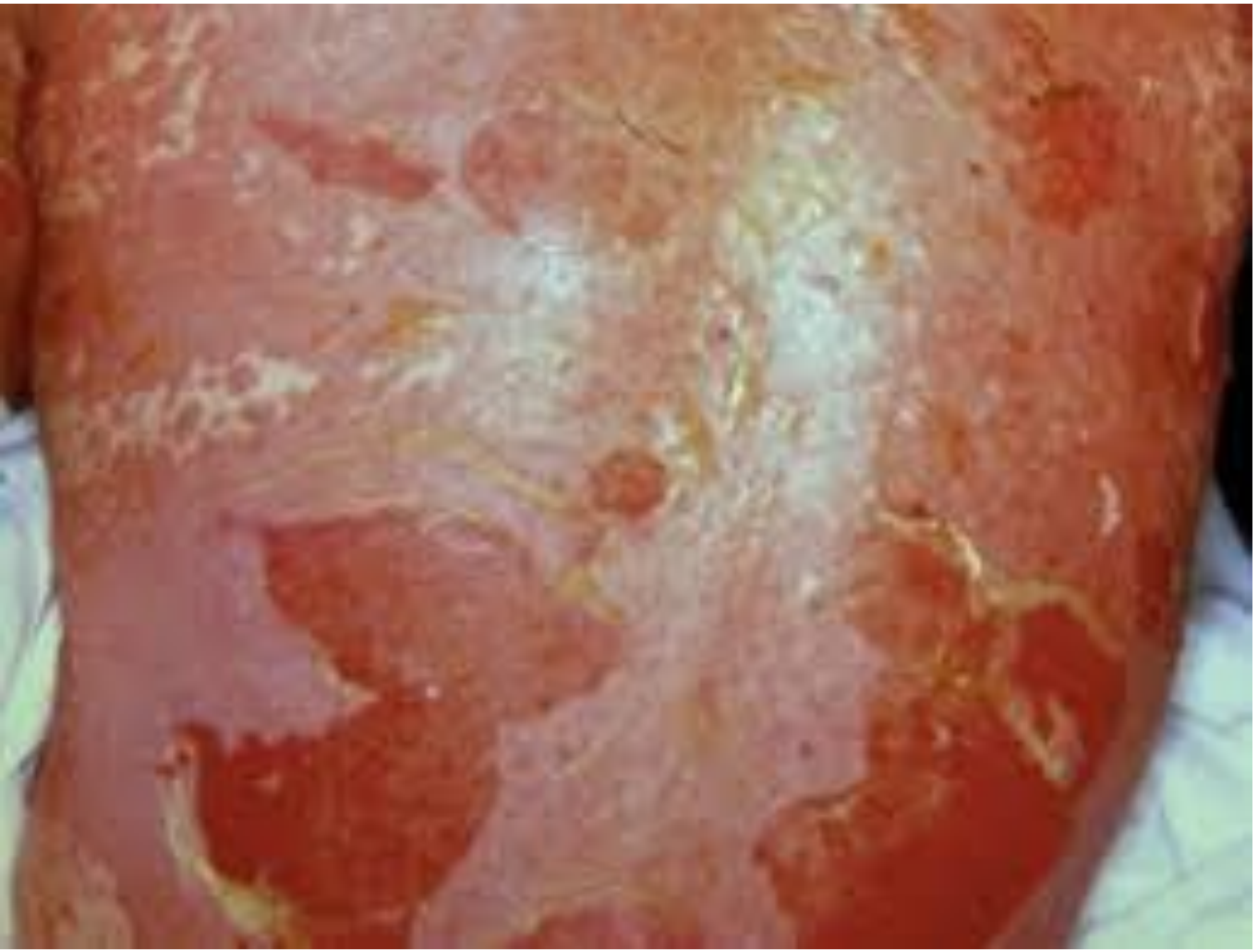
Erythema multiforme

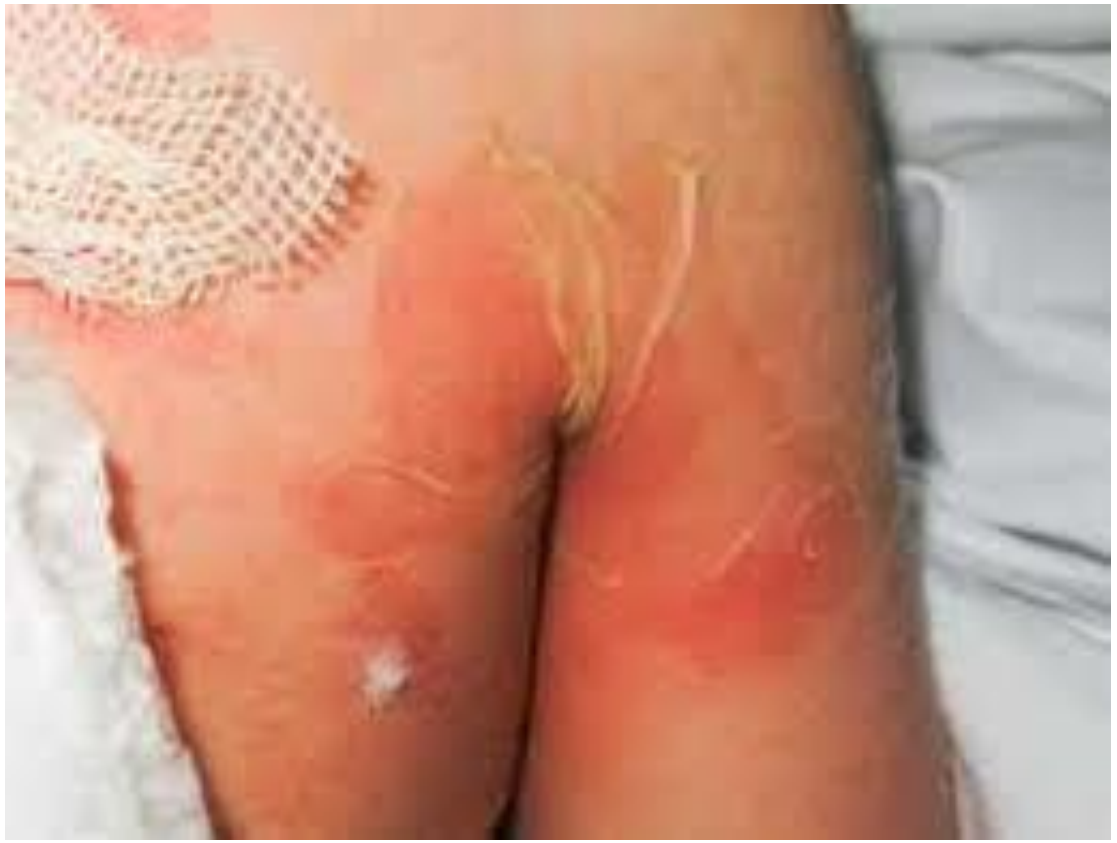
- Immunosuppressed (steroids, CA, BM transplant, SLE) patients are more susceptible
- EM minor – none/minimal mucosal involvement
- EM major – 1 or more mucous membranes, still < 10% skin involvement
- EM DDx – Steven's Johnson syndrome, Toxic epidermal necrolysis
  - More bullous in nature, + Nikolsky's sign
  - face/torso > acral/limb involvement
  - ≥ 30% skin involvement defines TEN





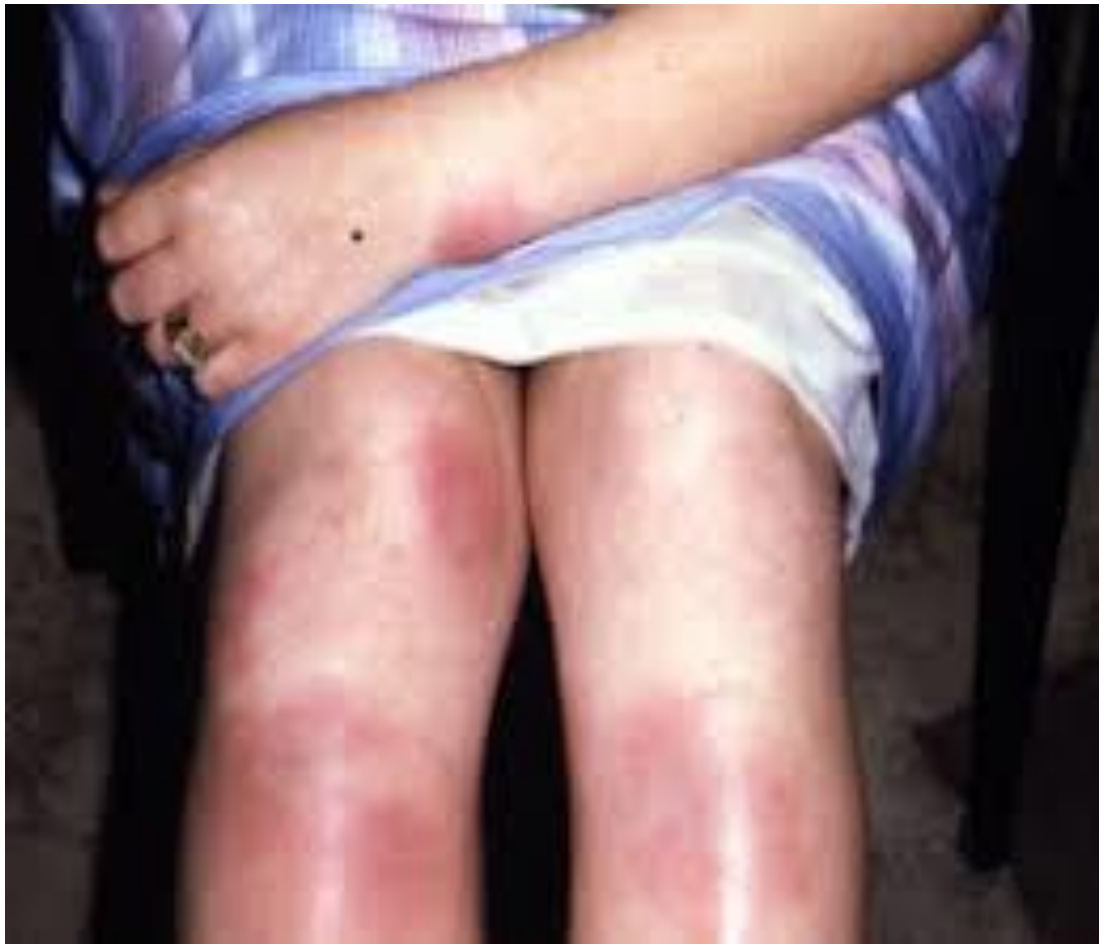


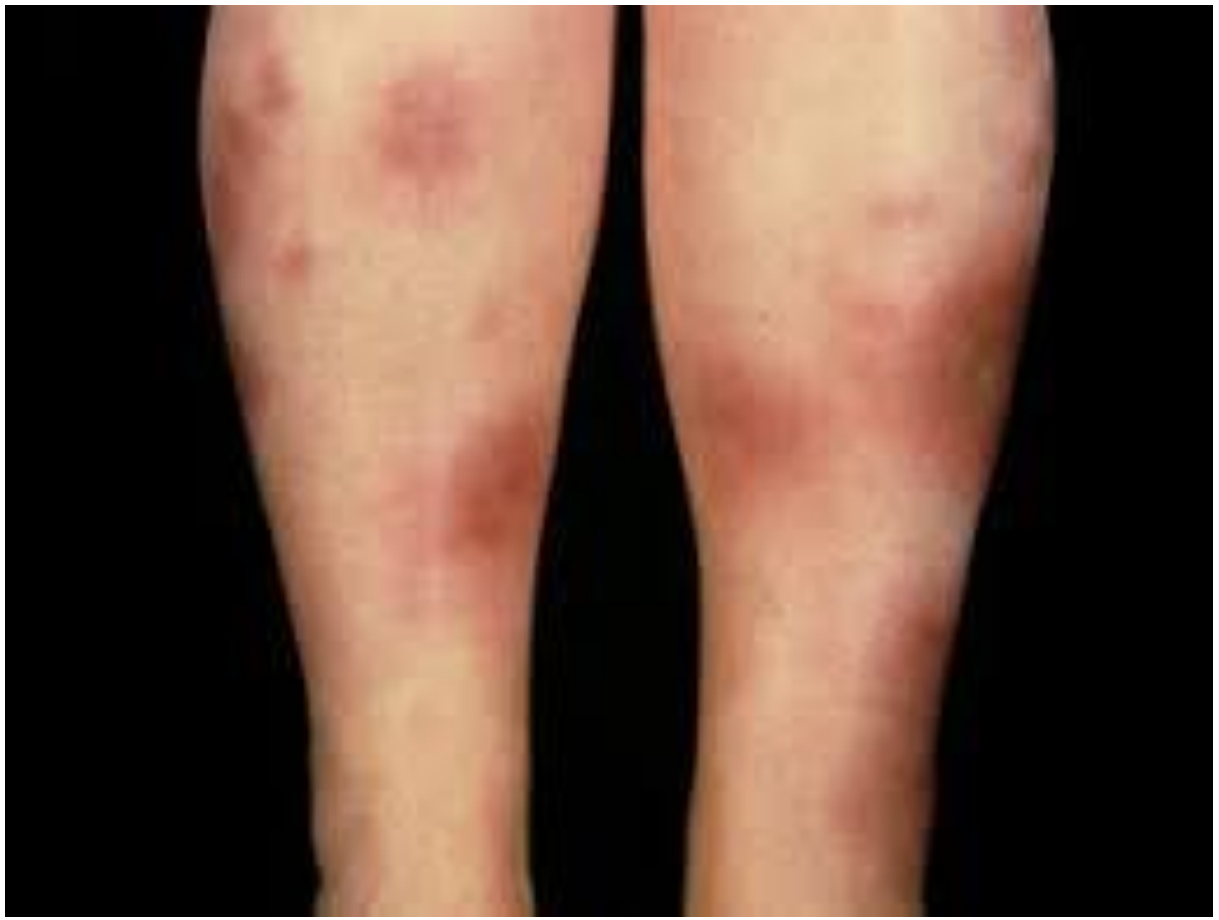




Treatment – Erythema multiforme

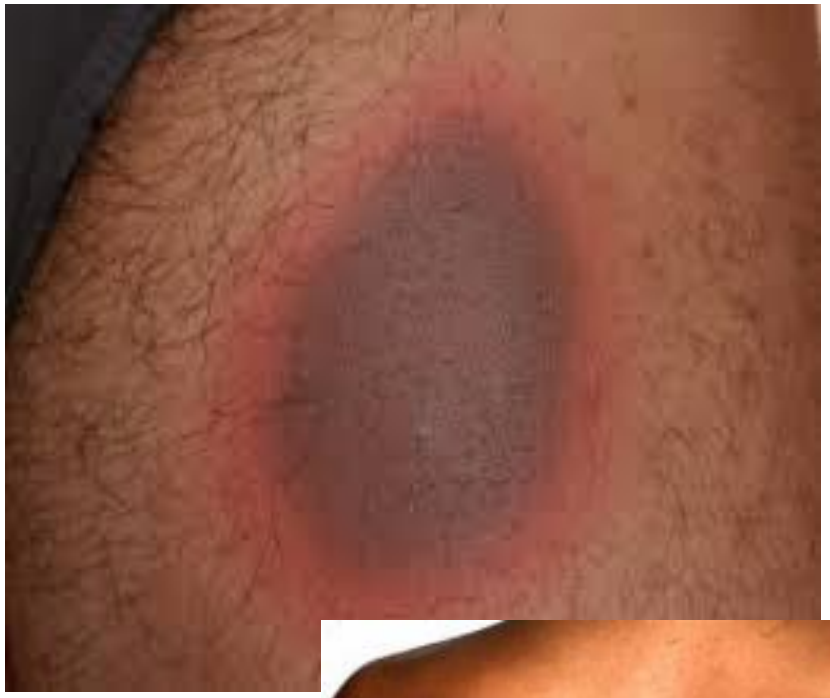
- STOP ANY OFFENDING SUBSTANCE
- Treat any associated infection
- Symptomatic treatment
- Wound care, as needed
- Consider ED referral/admission
  - difficulty taking POs
  - extensive involvement/worsening course

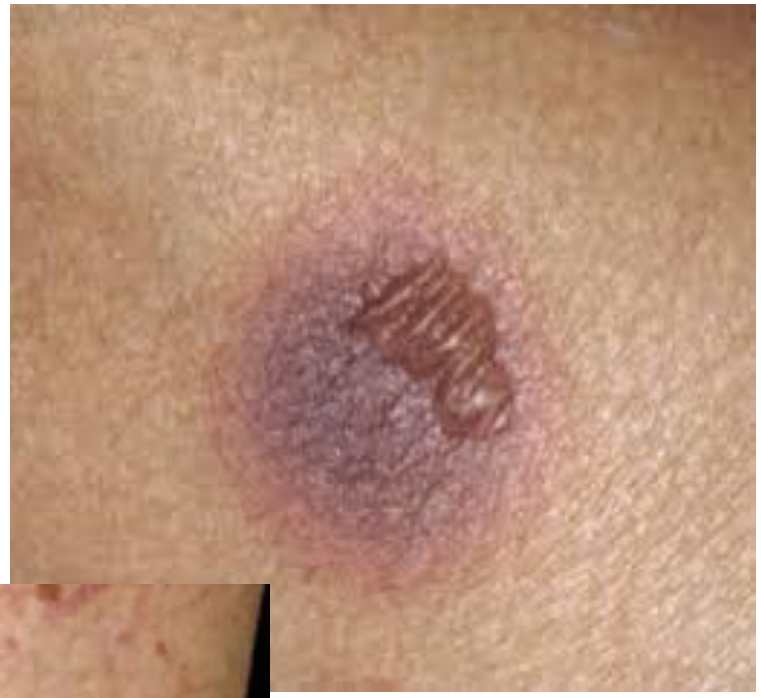


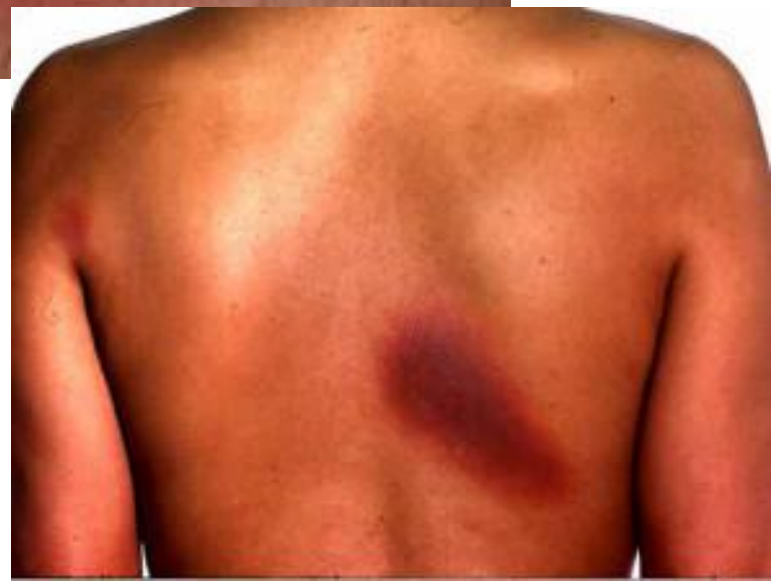


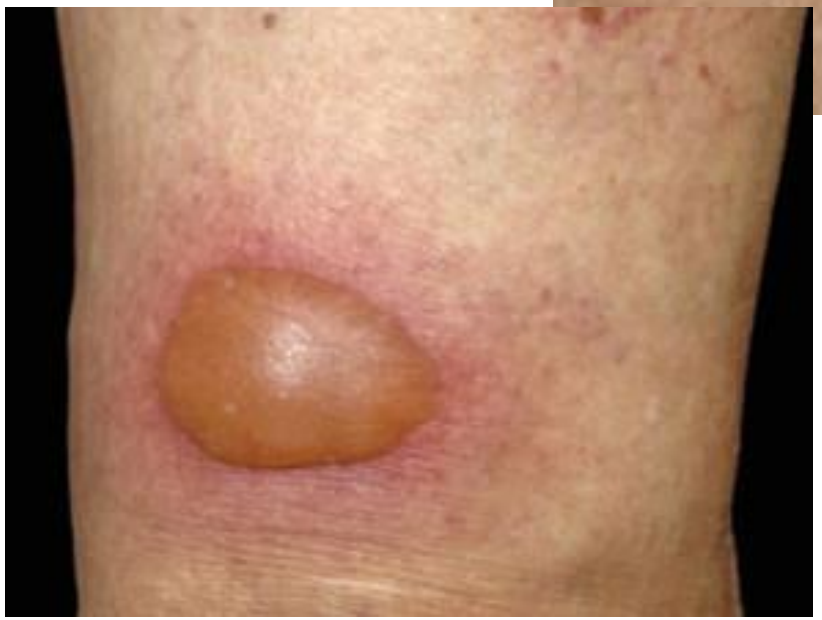
Erythema nodosum

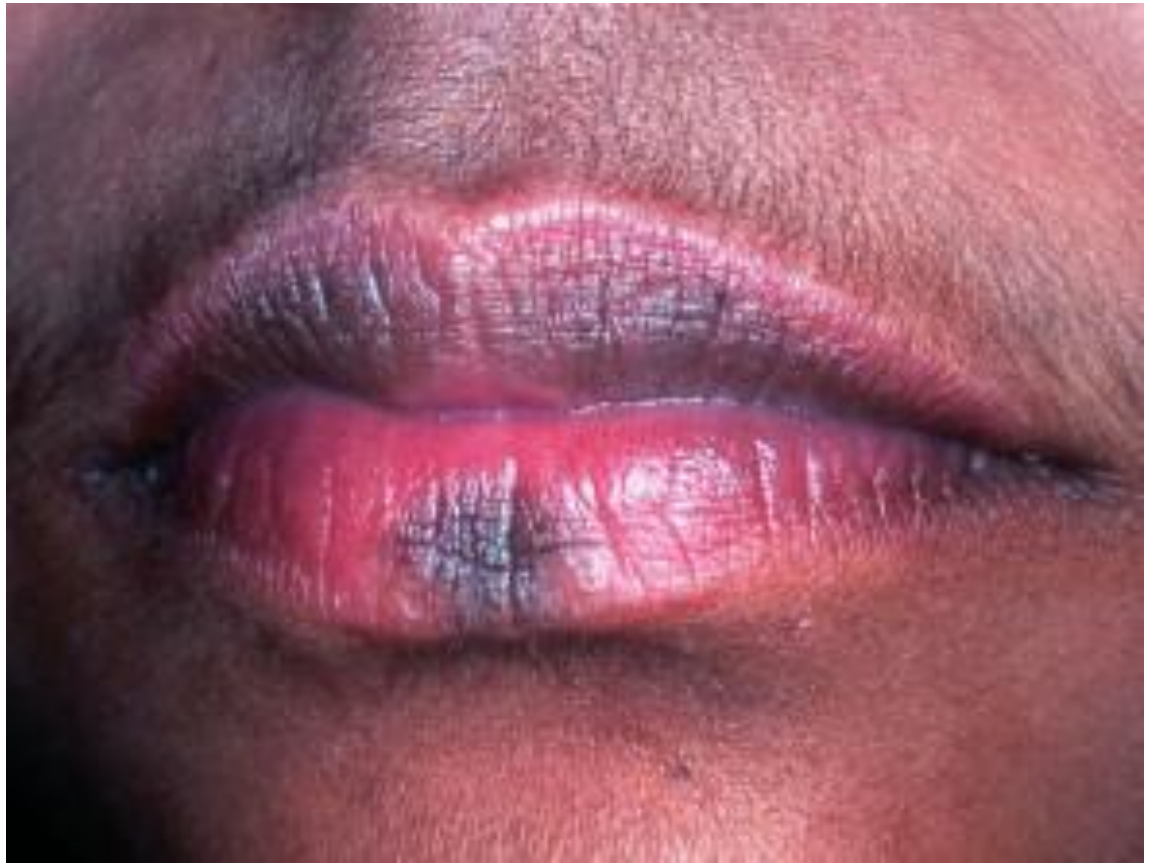
- Panniculitis of SQ fat
- Many similar etiologies to EM
- A bit higher correlation with connective tissue diseases and leukemia and lymphoma
- 2-5% cases associated with pregnancy
- PO steroids sometimes used at dermatology follow-up

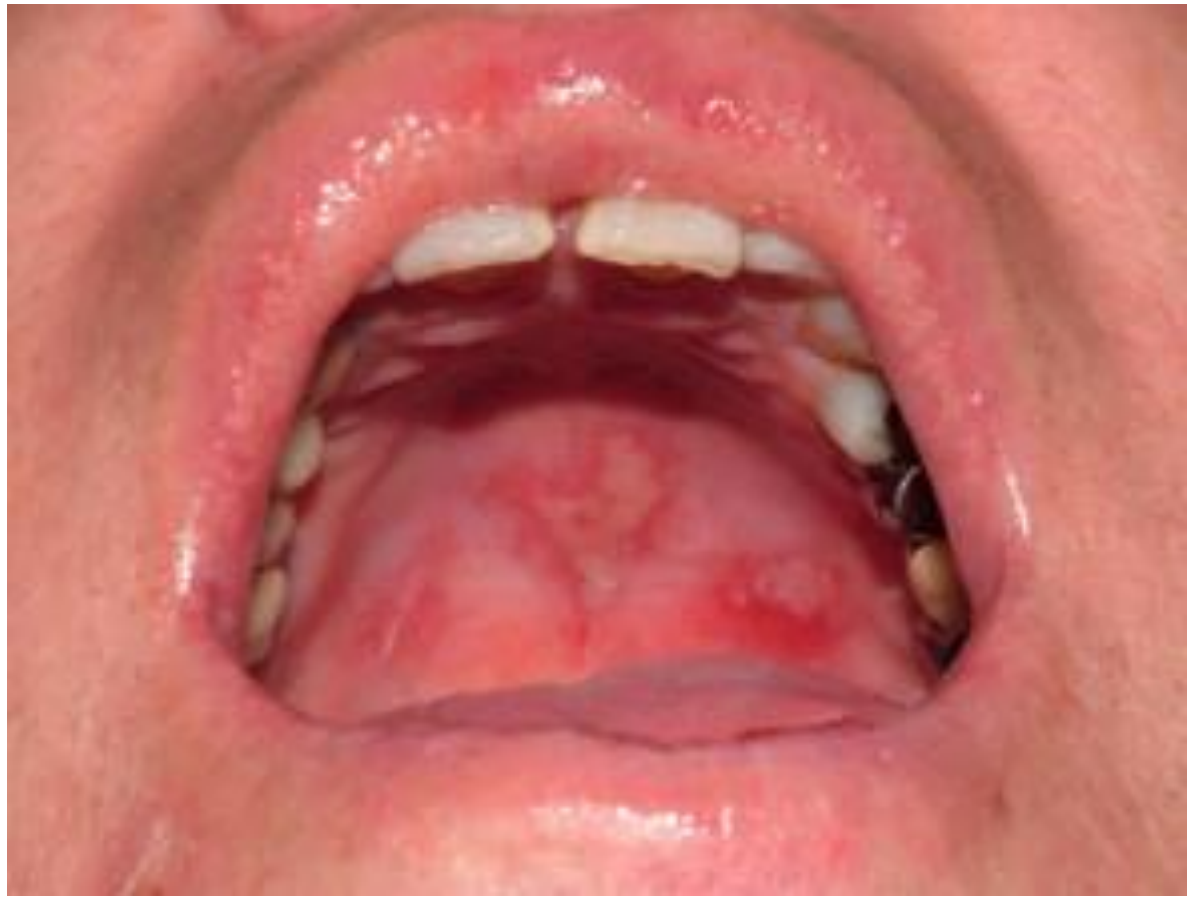


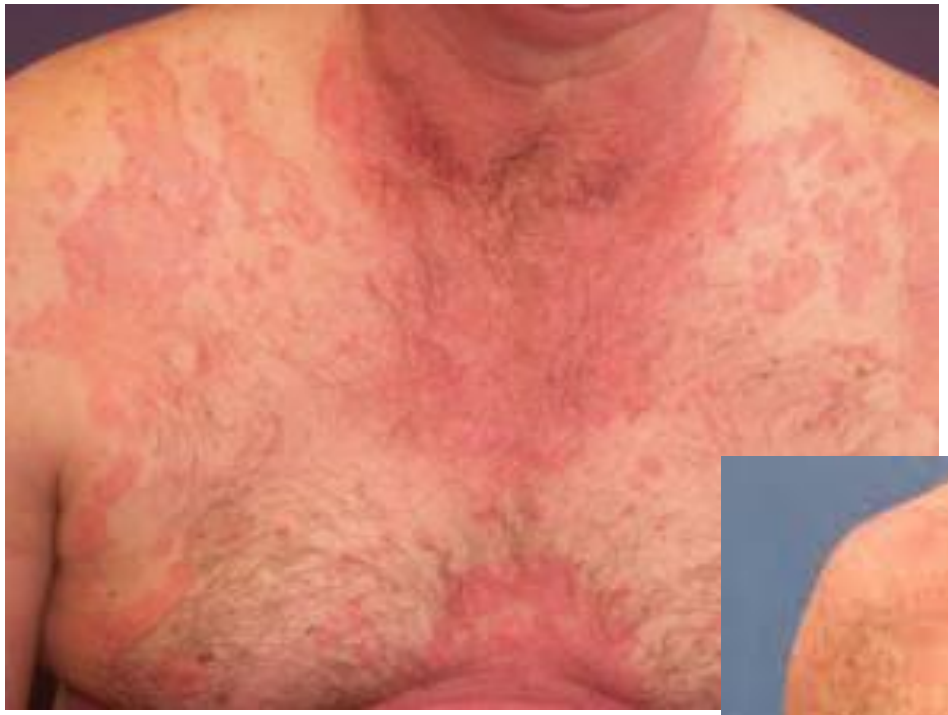


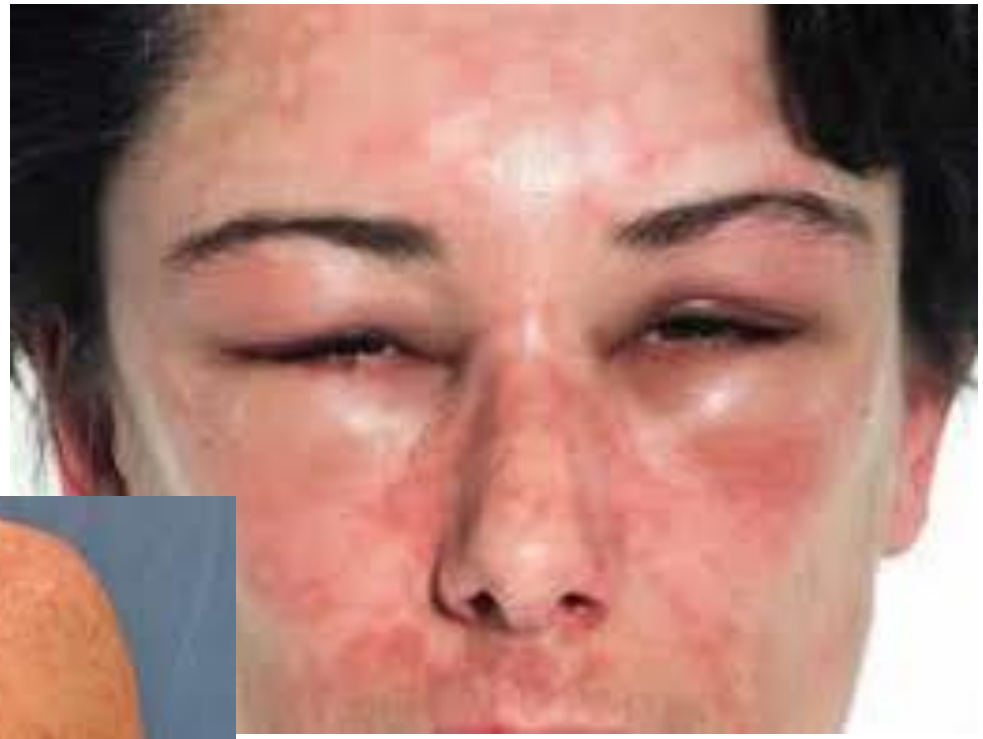


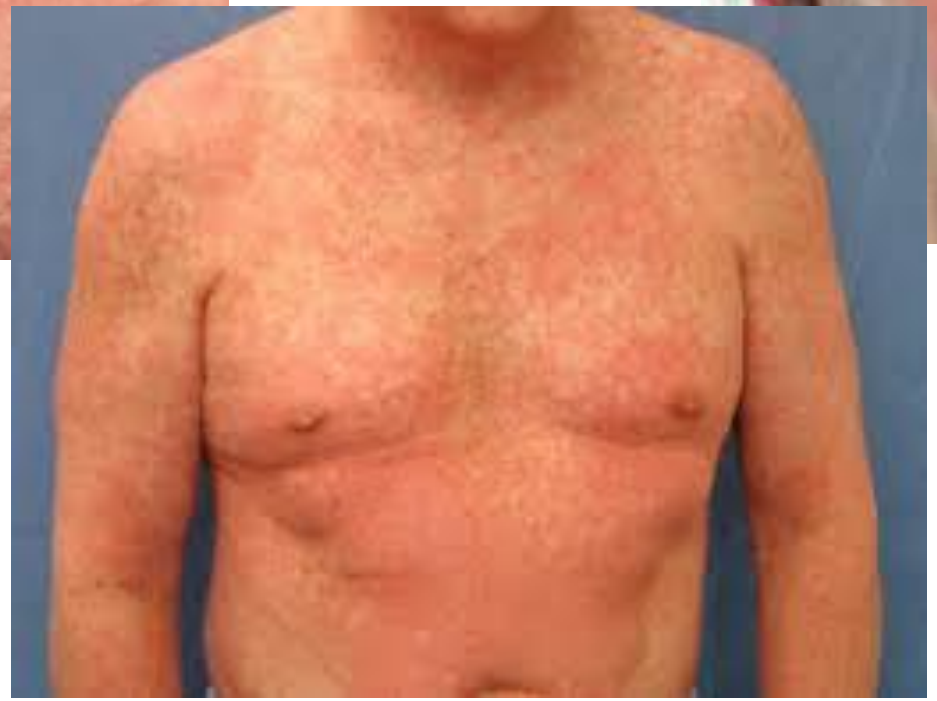










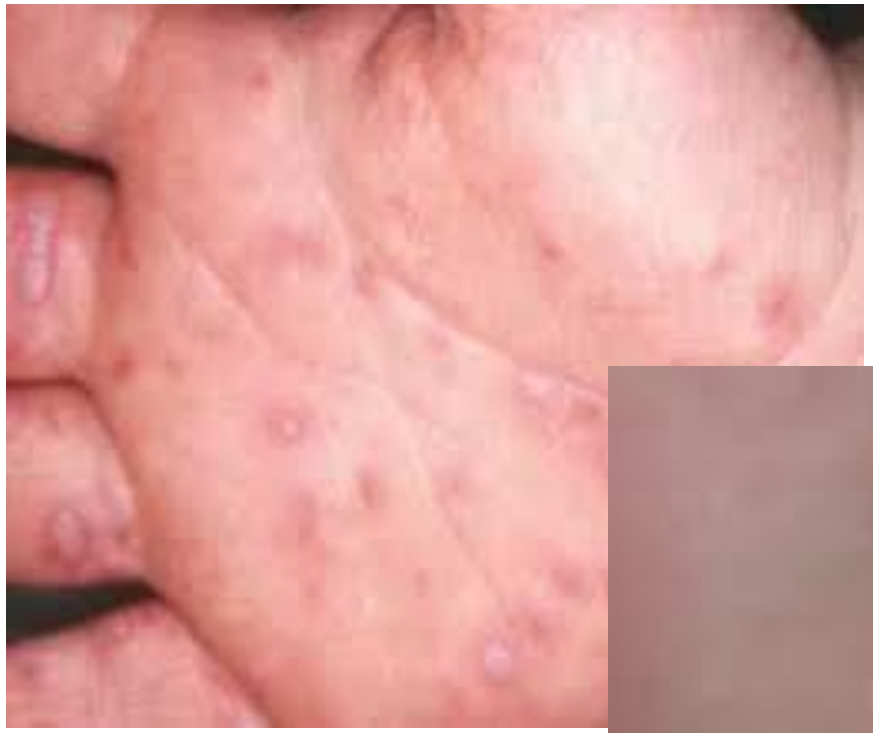


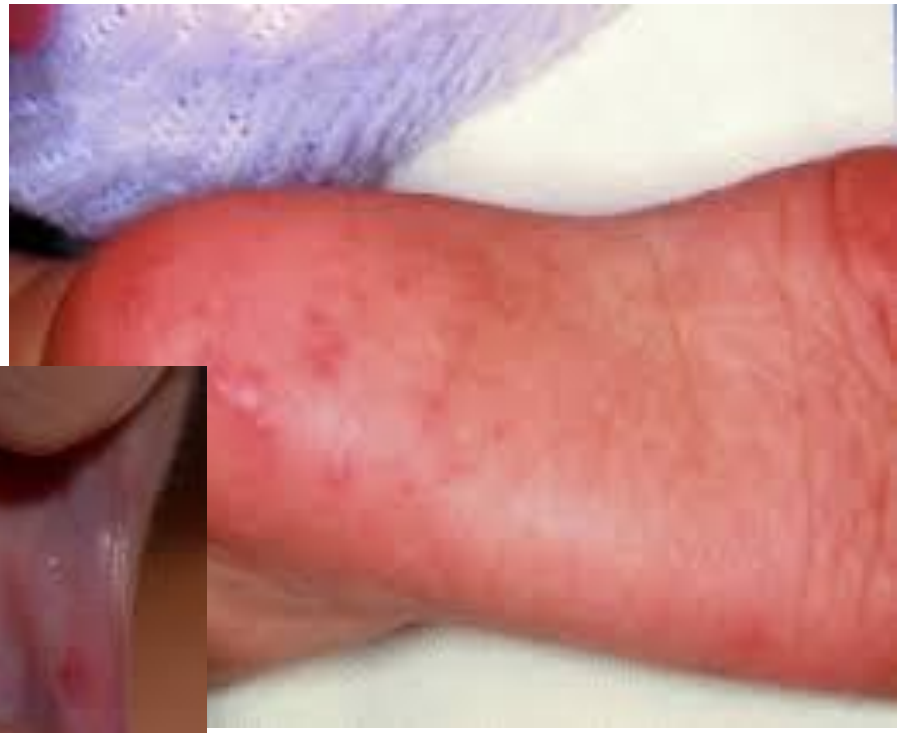
Medication reactions

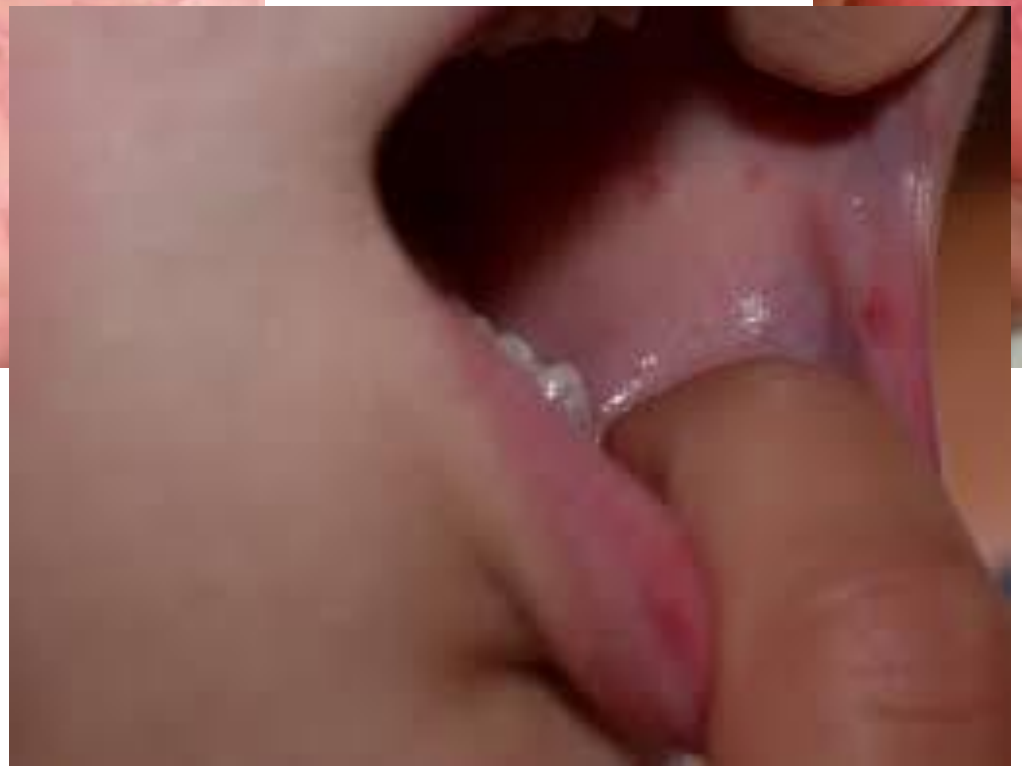
- “Fixed”
- Urticarial
- Angioedema
- Morbilliform

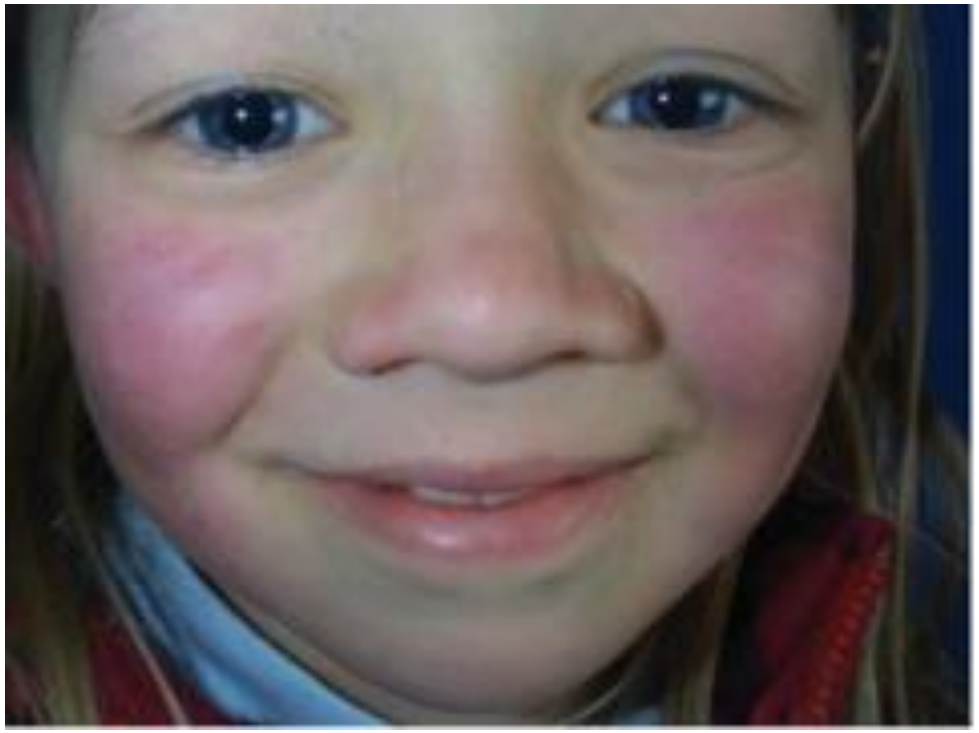
Viral exanthems

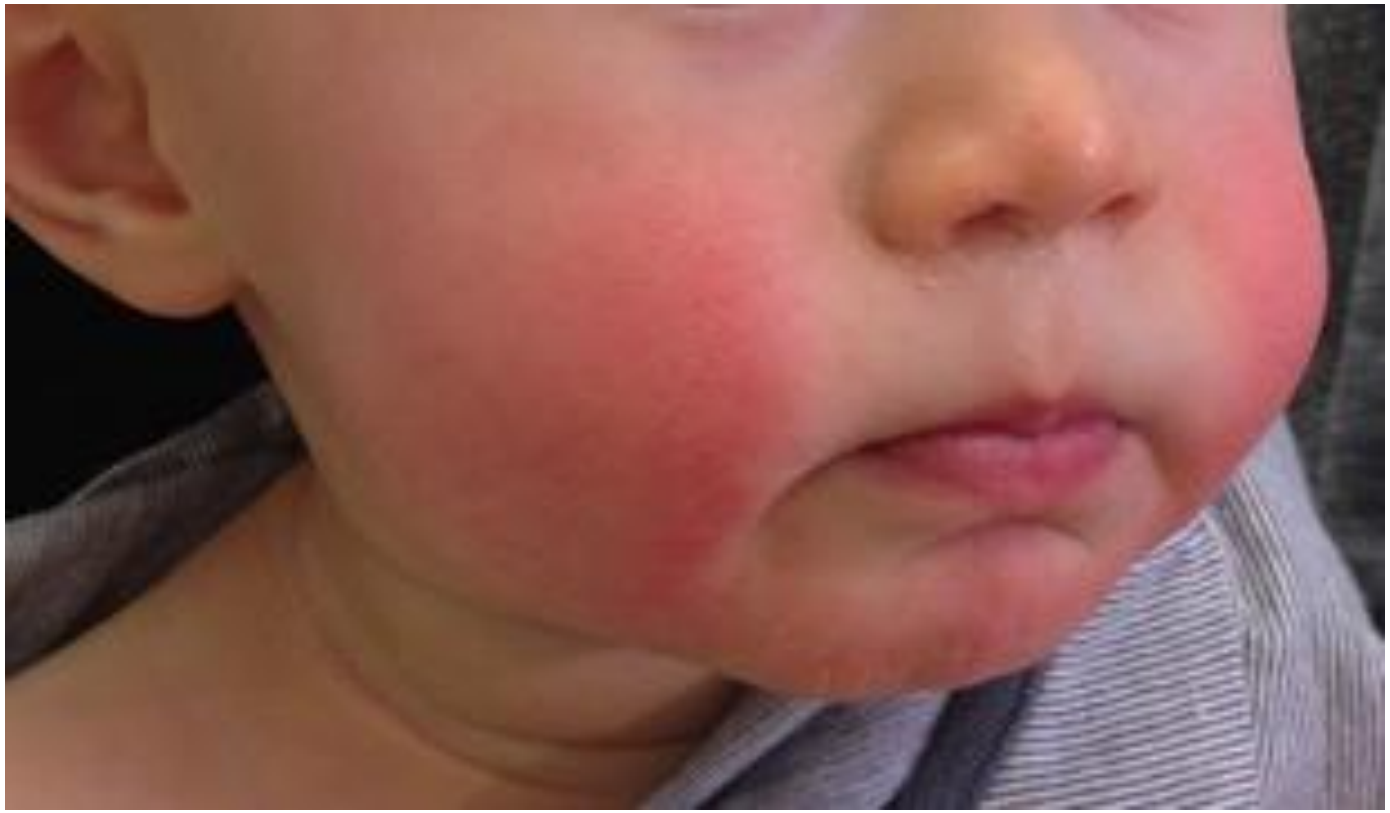
- Inside-out rash – pink, non/minimally raised, and blanchable…usually
- Look in the mouth
- Some specific patterns – rash, illness/syndrome
- Recognize the important ones – isolation, +/- treatment
  - Measles (pregnancy; encephalitis/immunosuppression → IV ribavirin)
  - Chickenpox (pregnancy, immunosuppression → IV acyclovir)

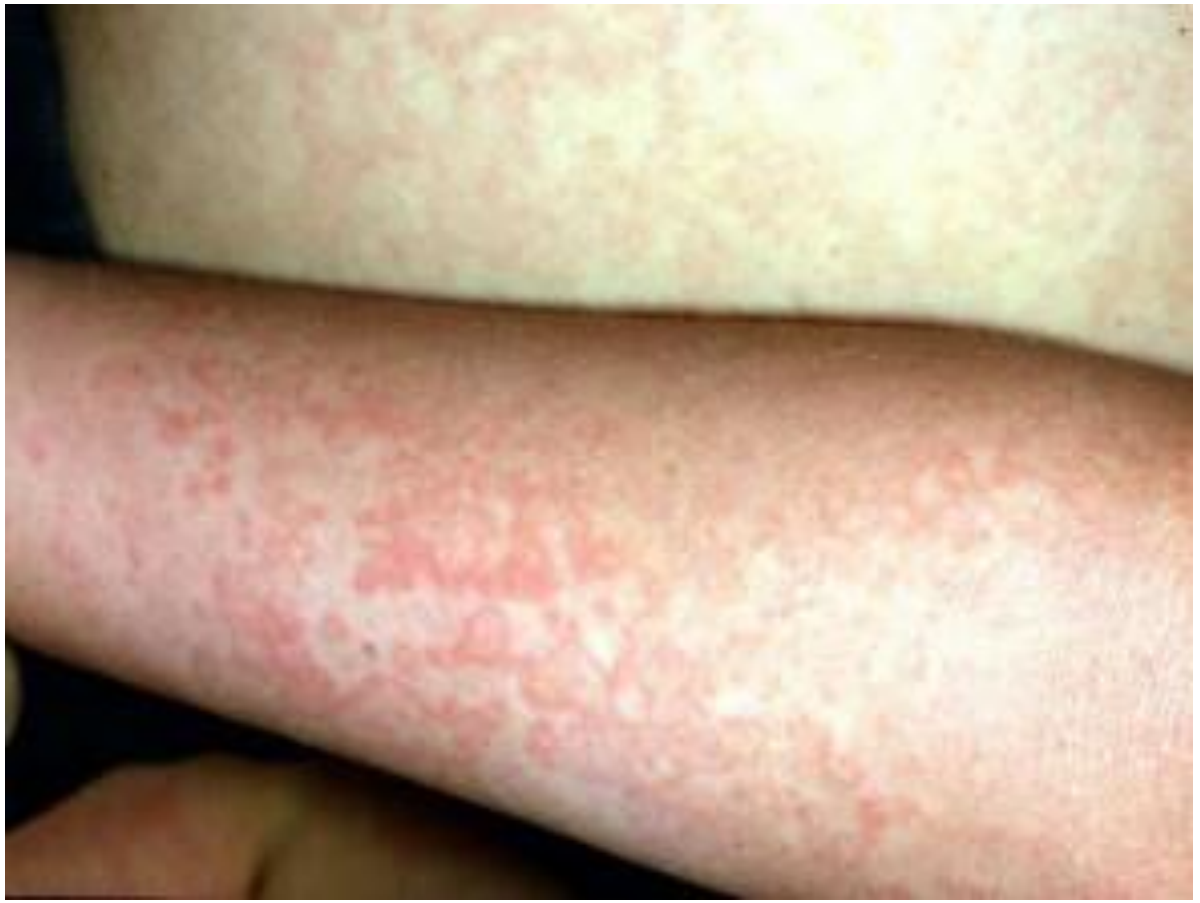


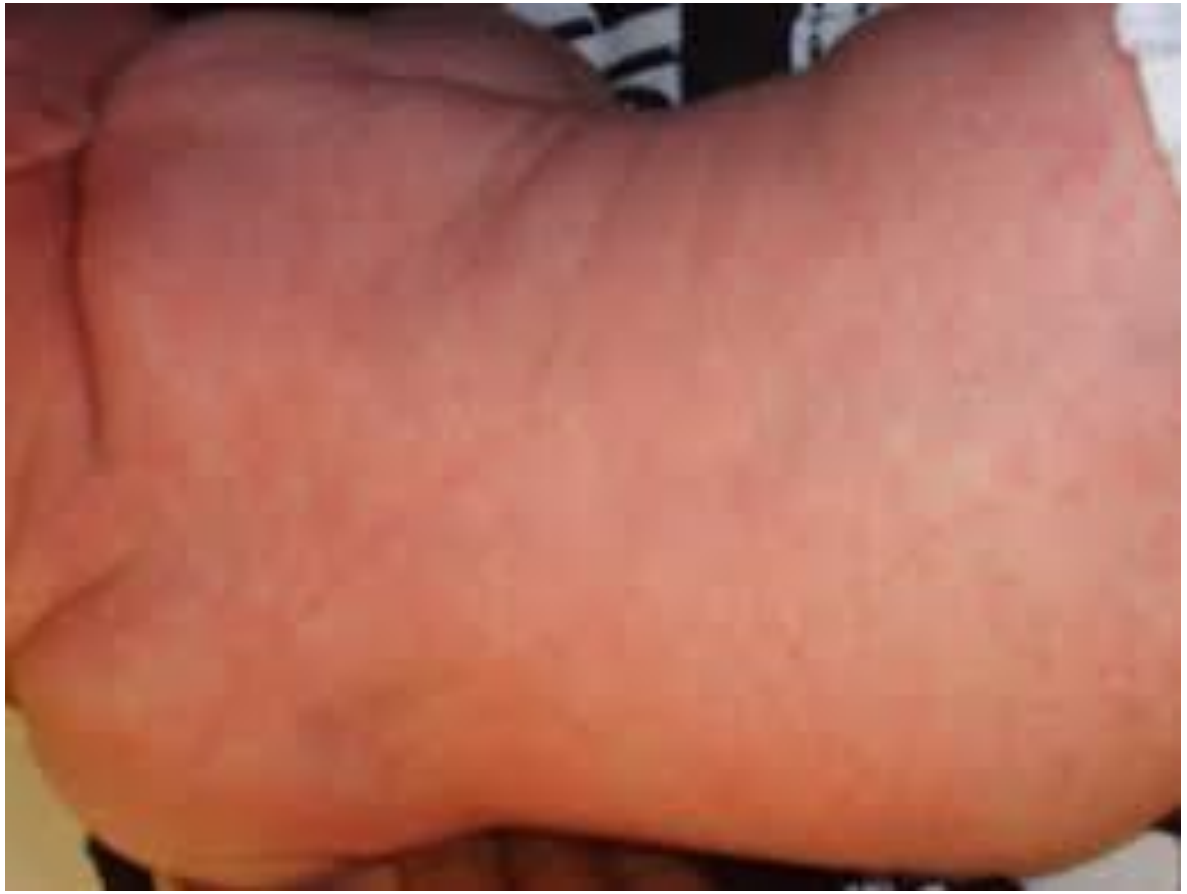


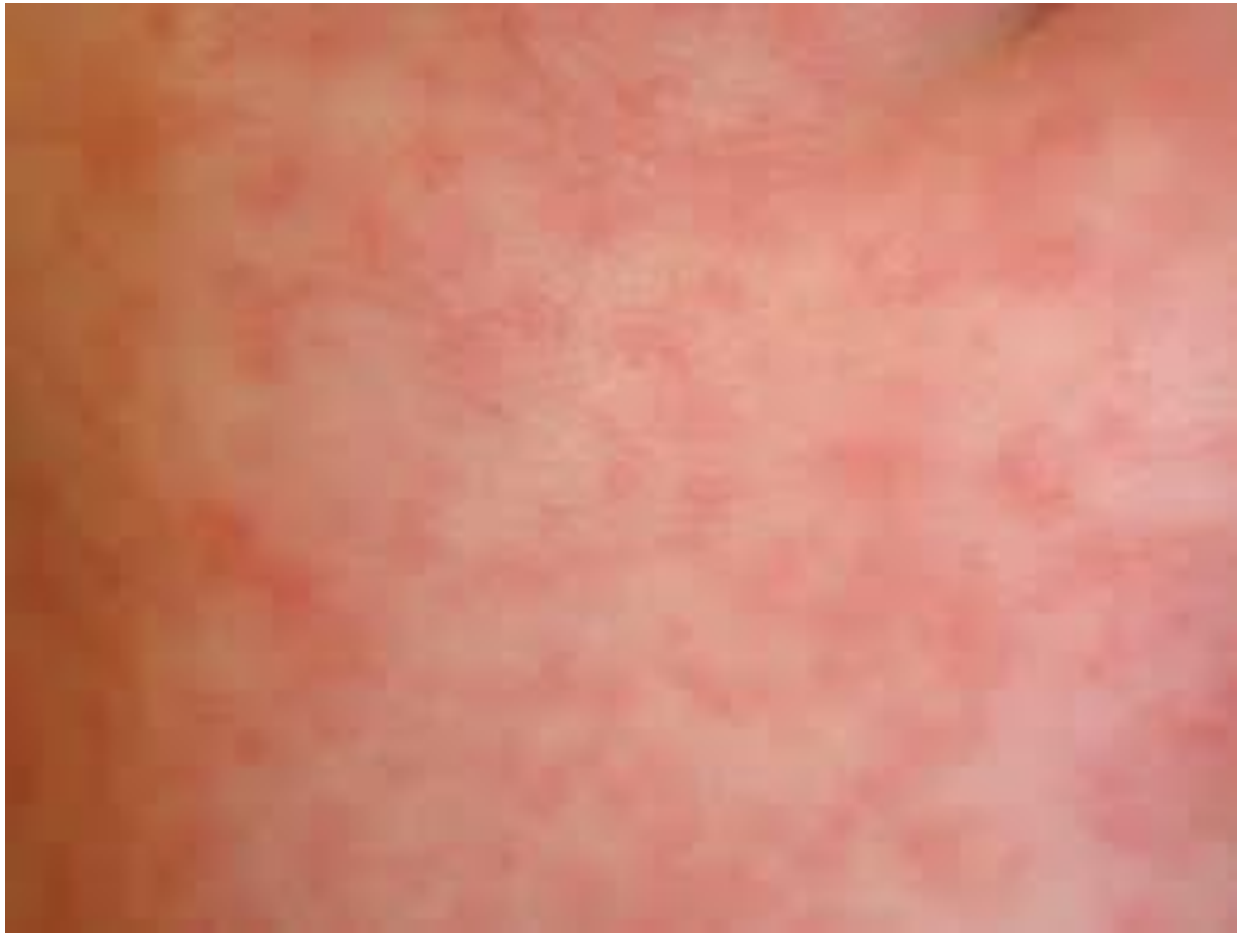


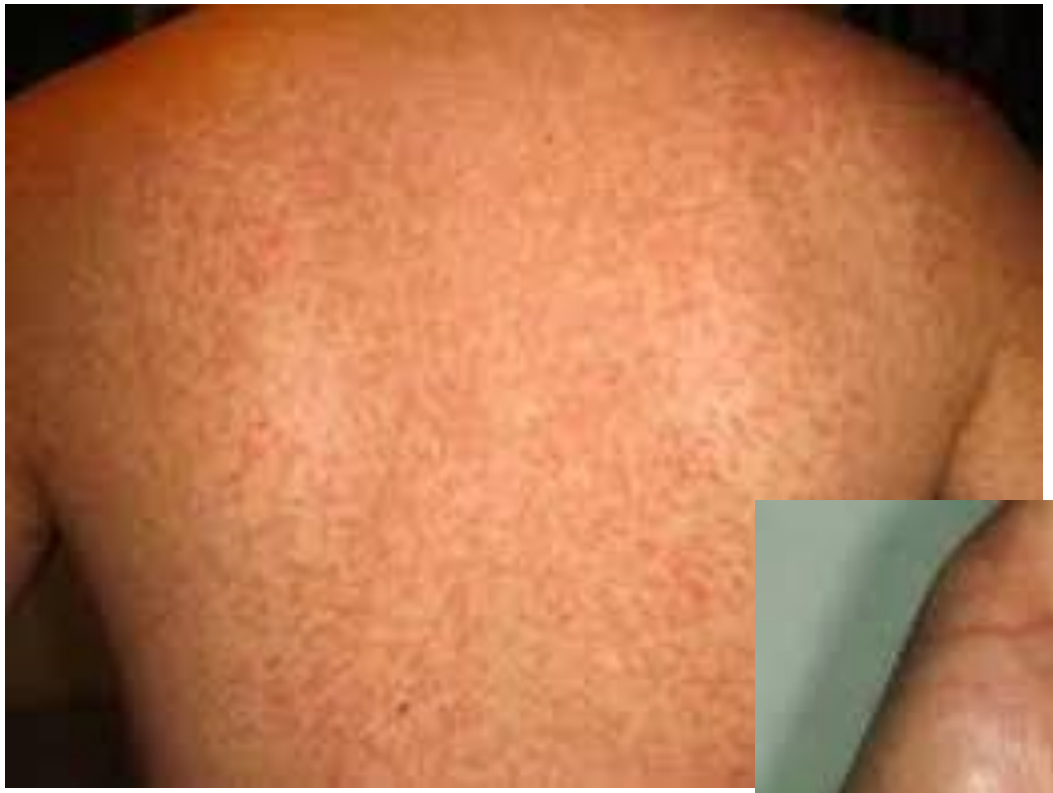


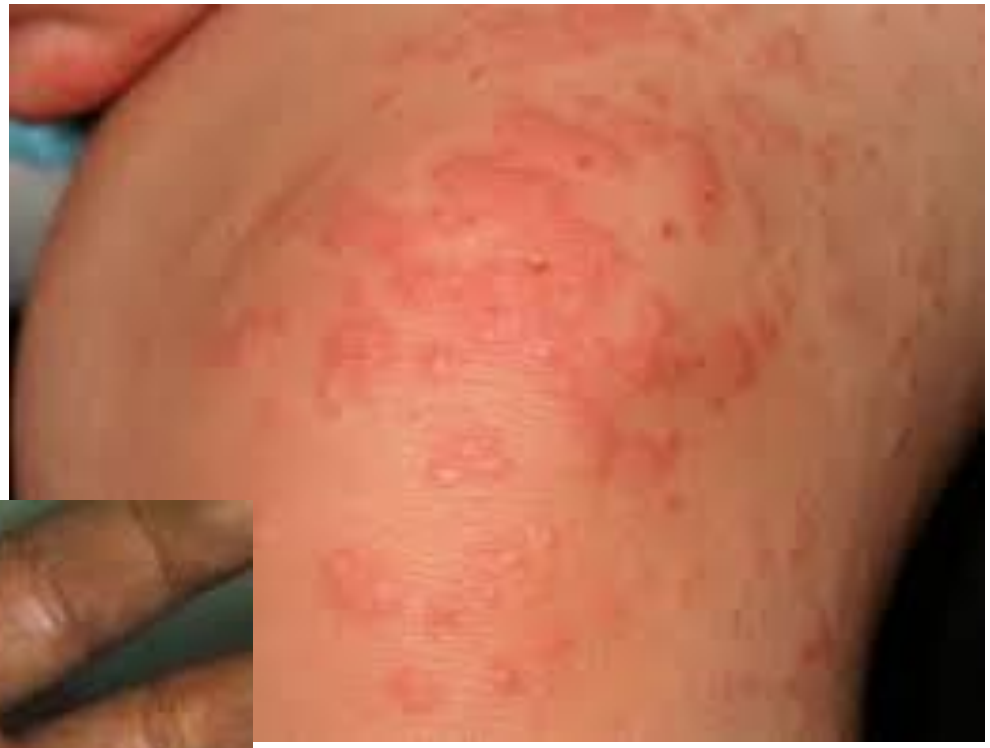


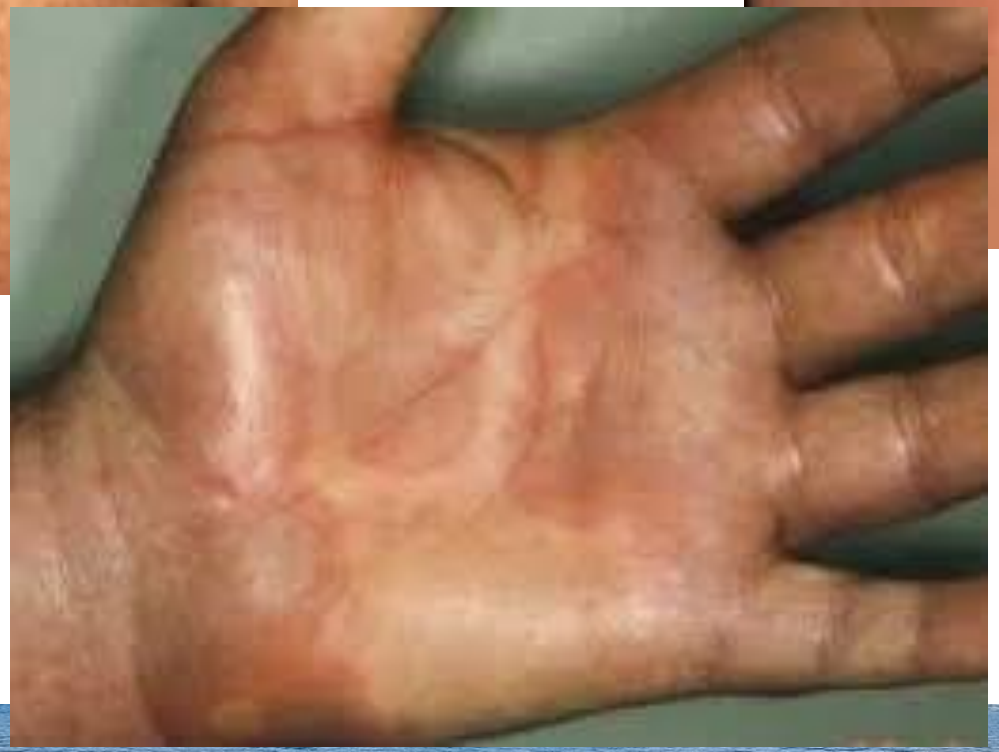


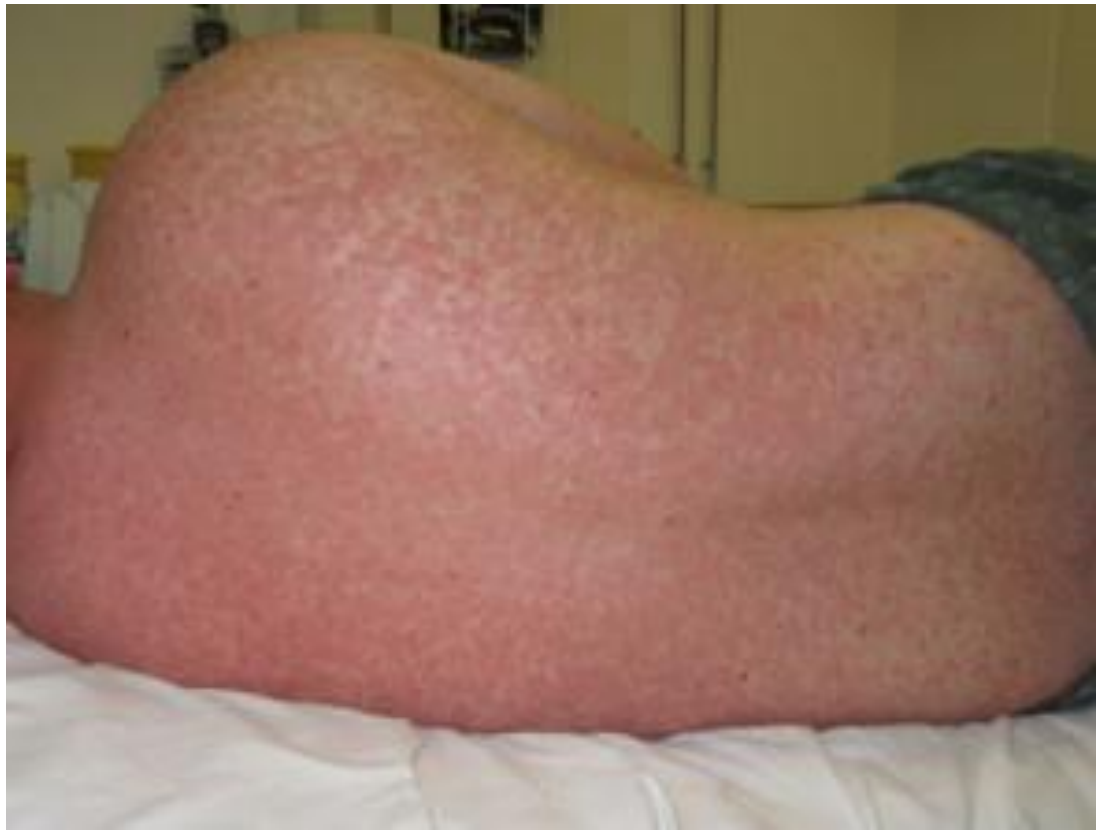


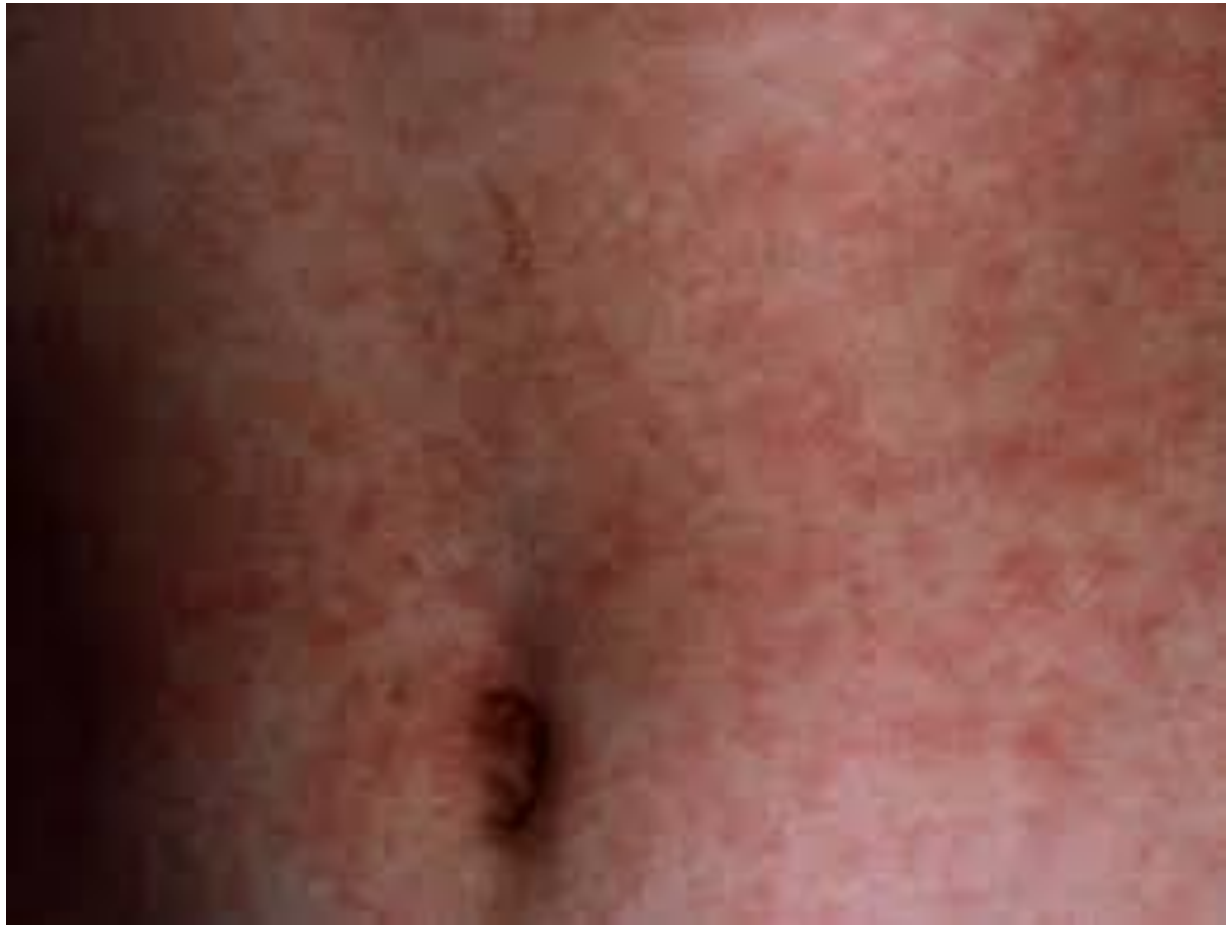


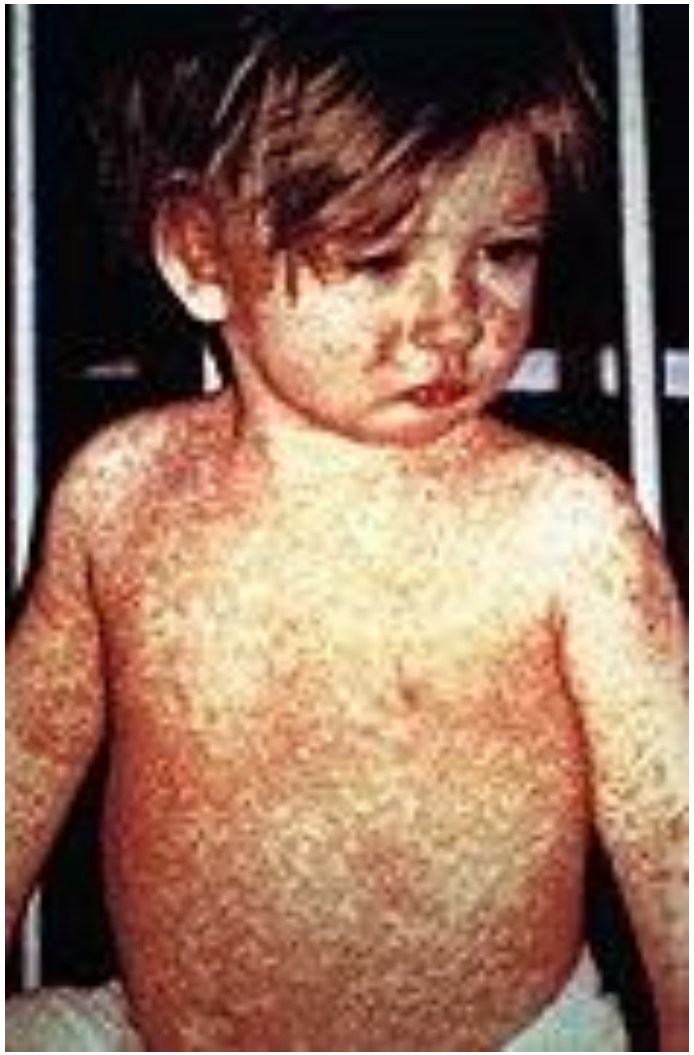


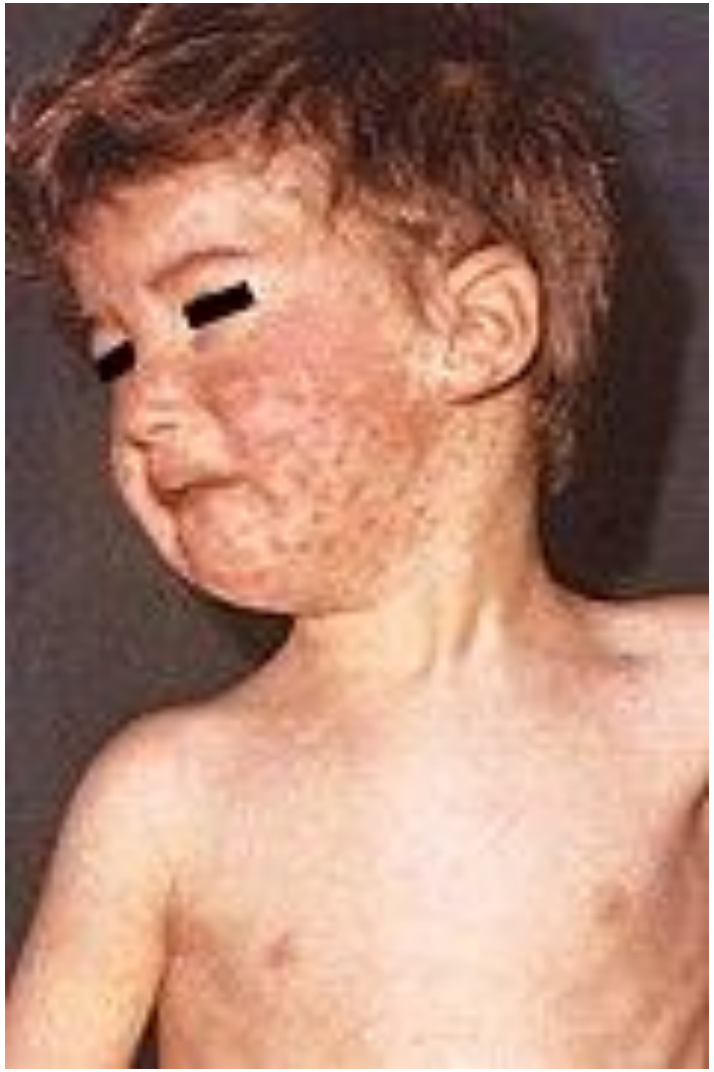


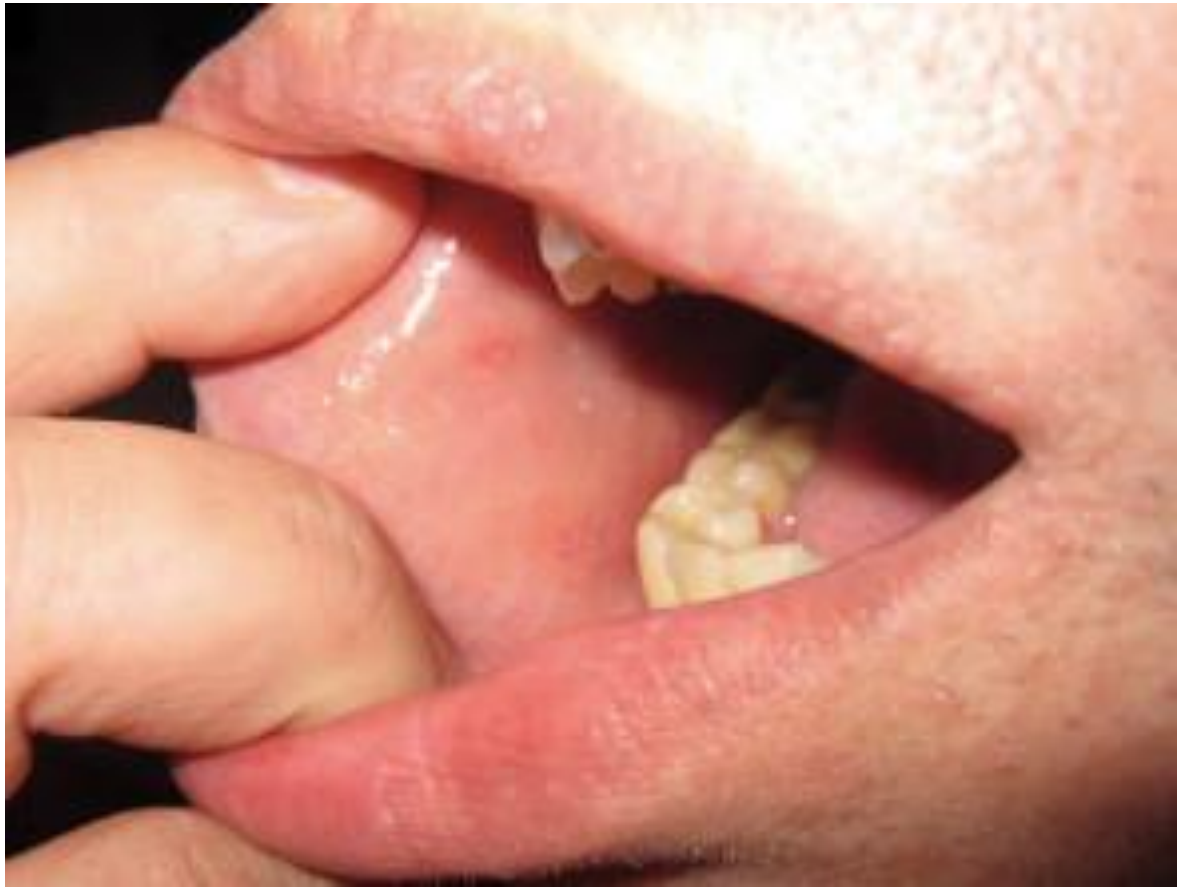


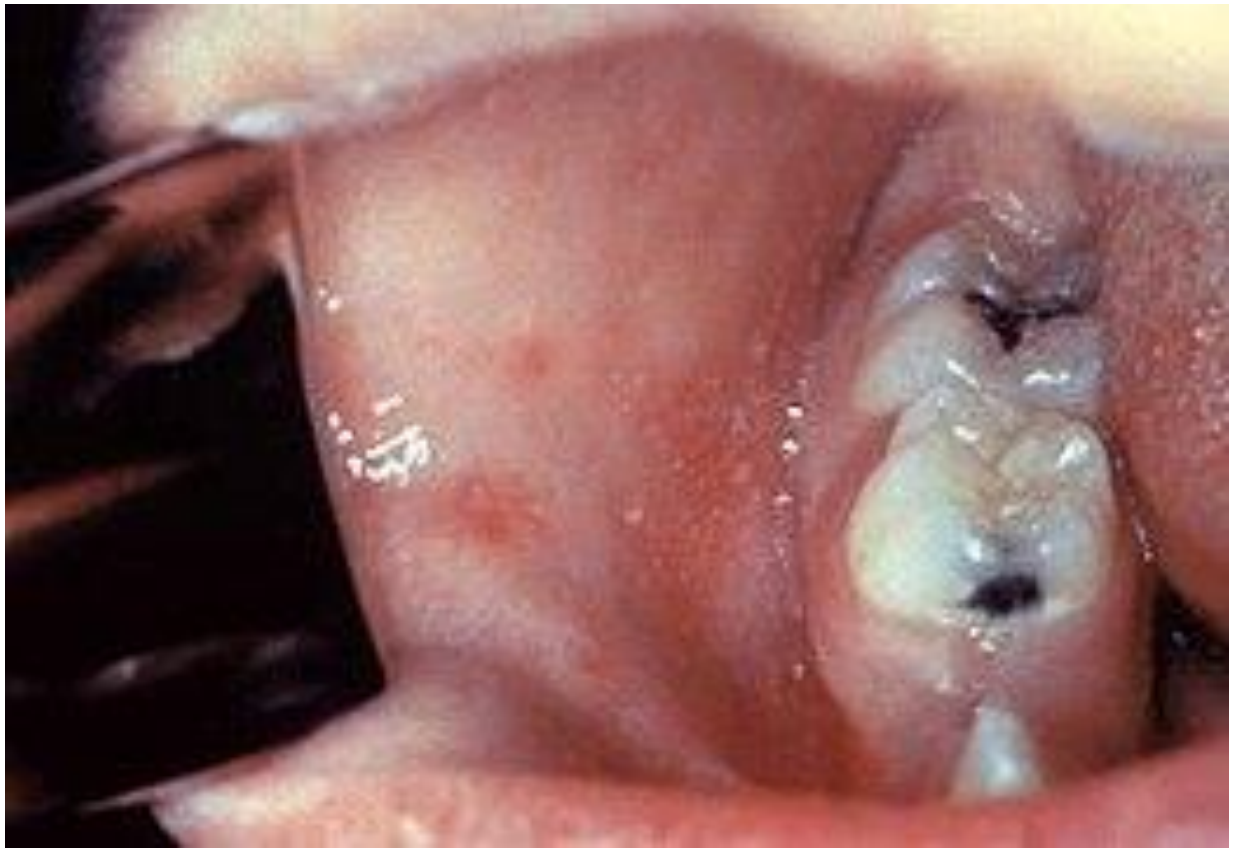


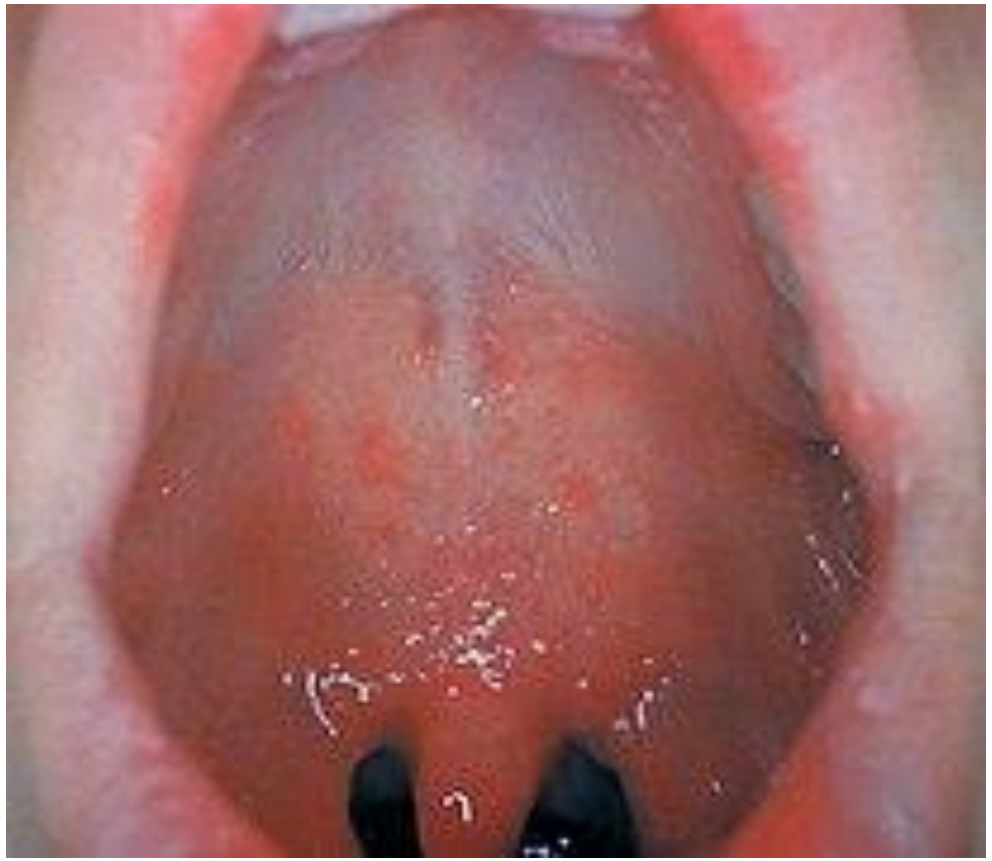


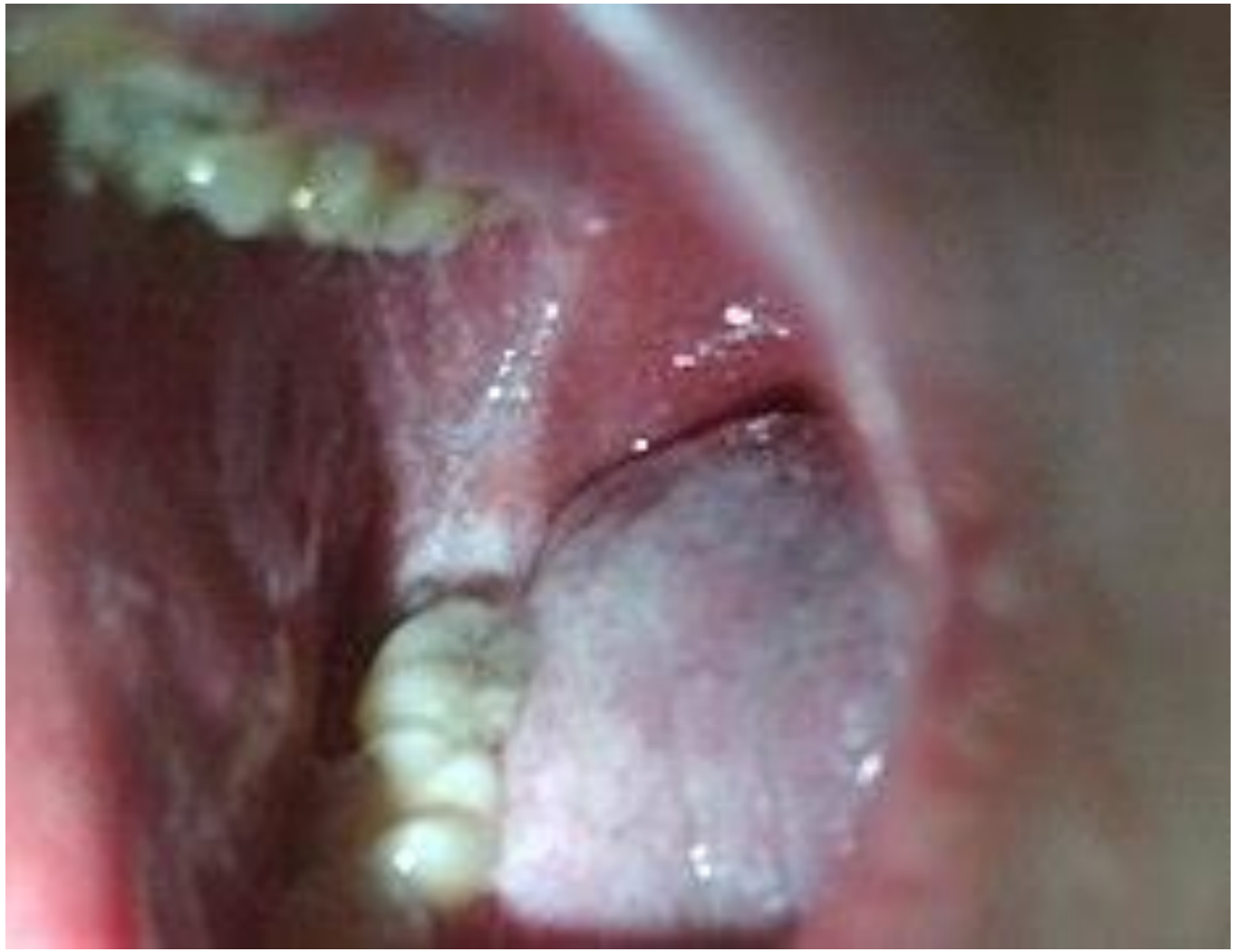


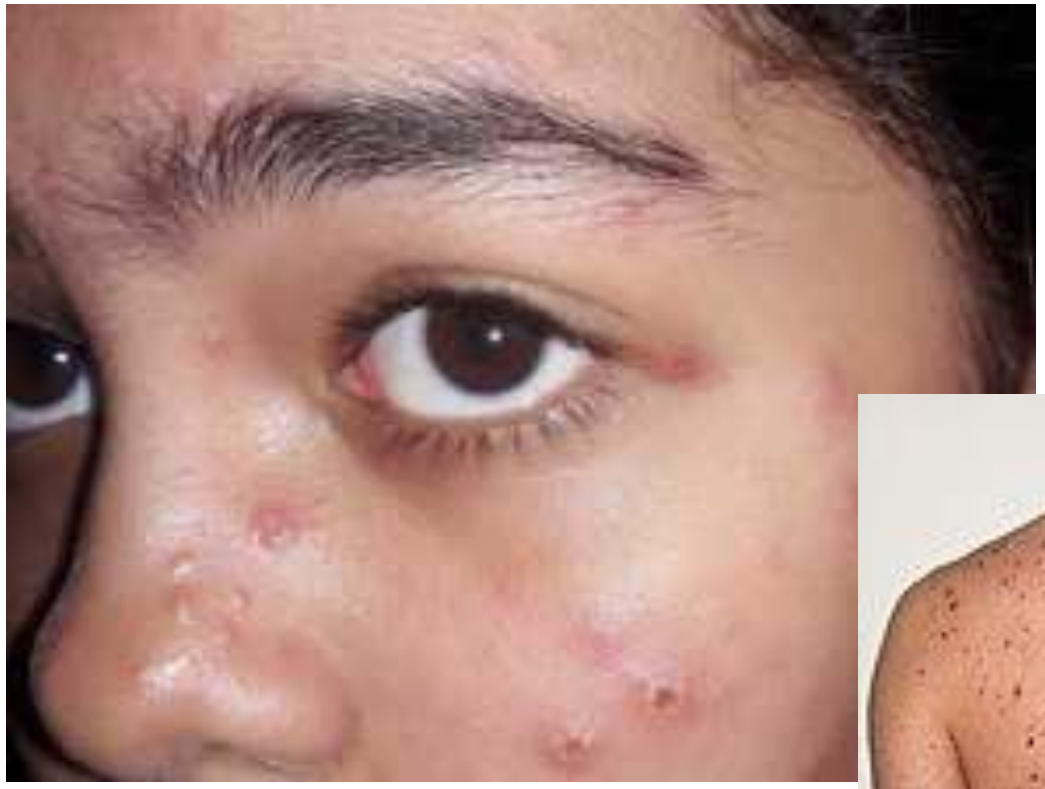


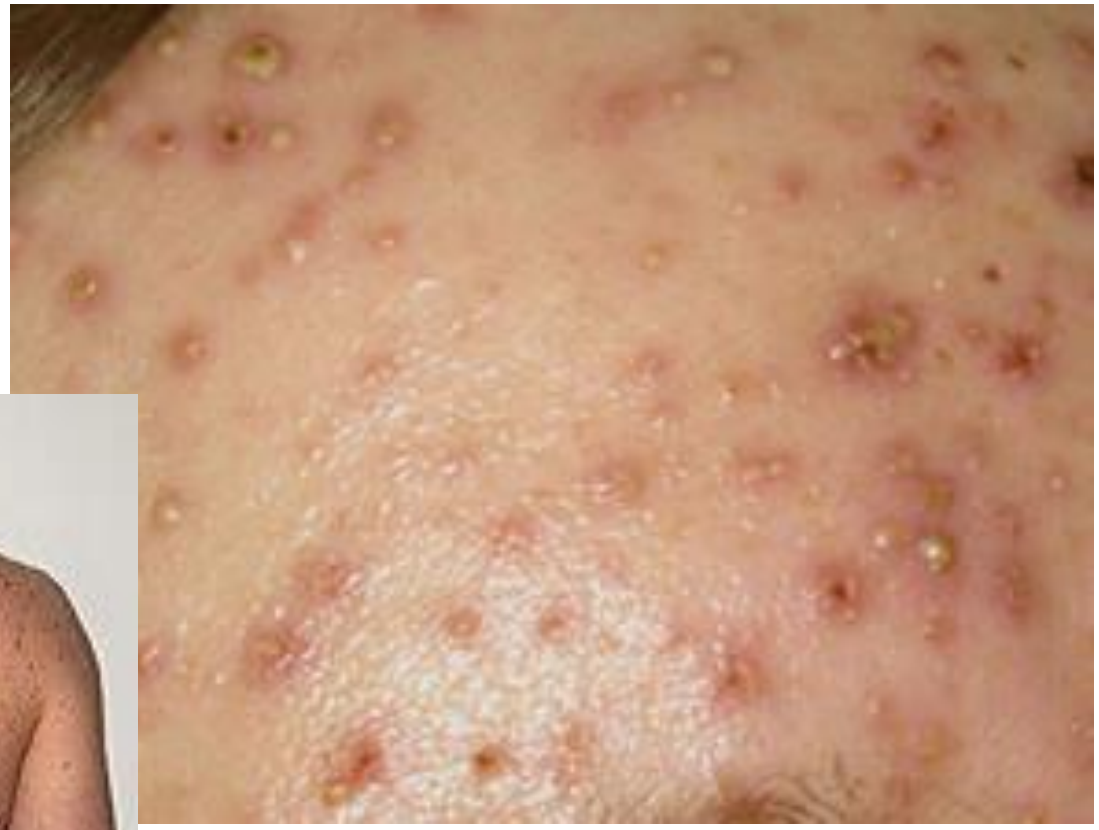


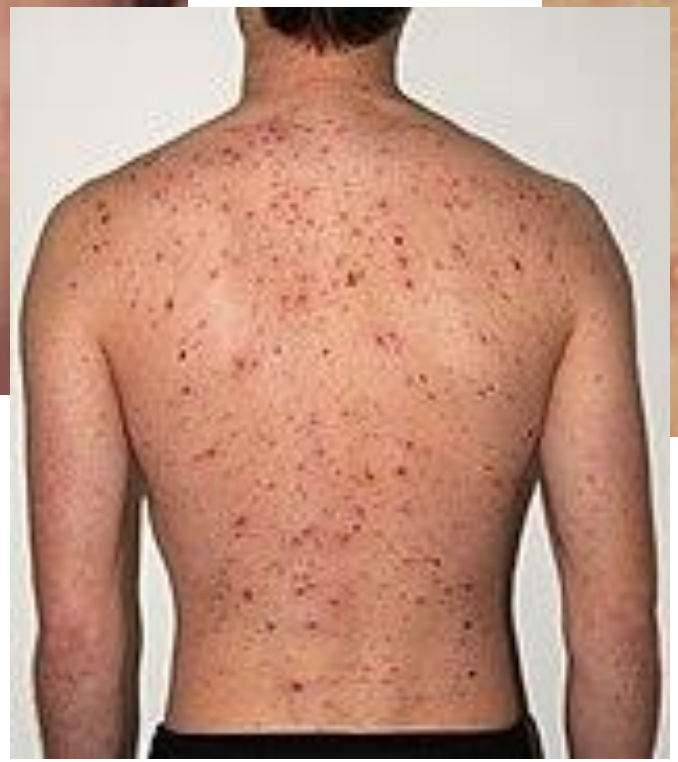


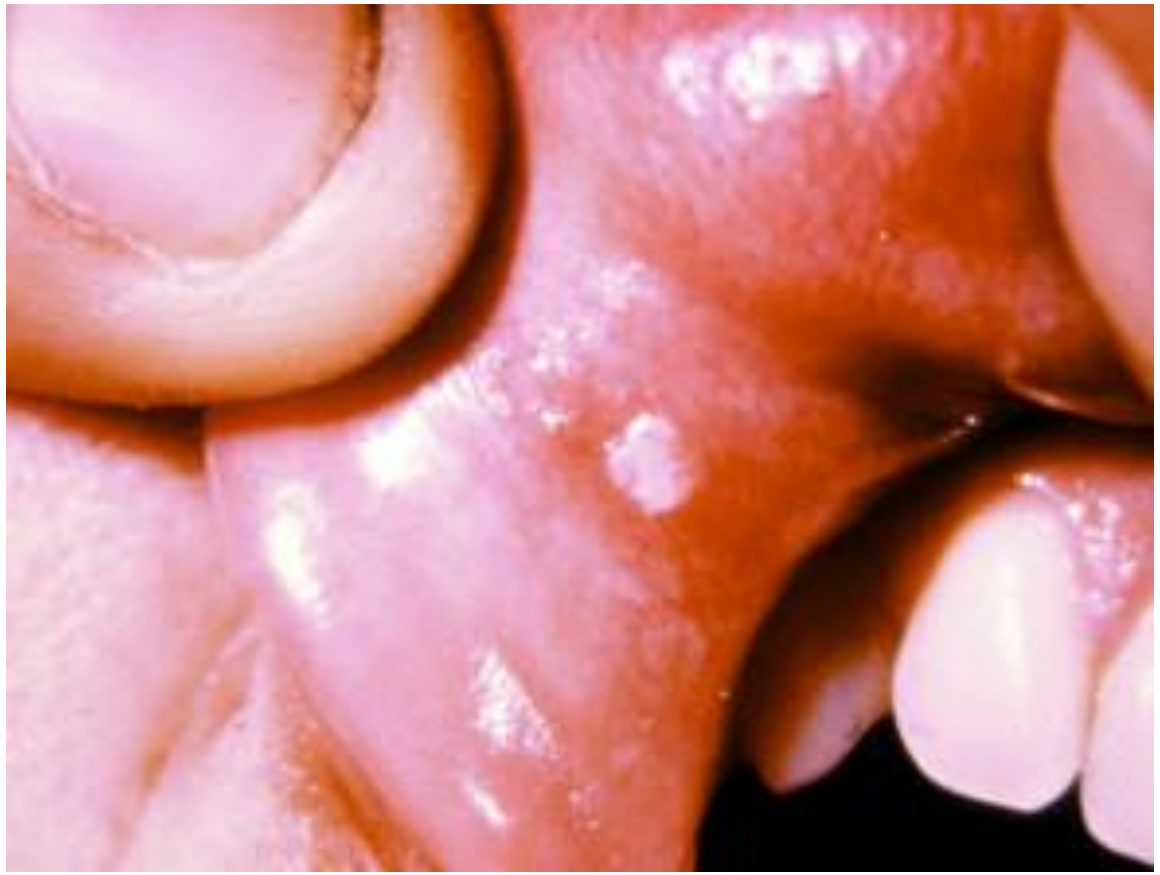


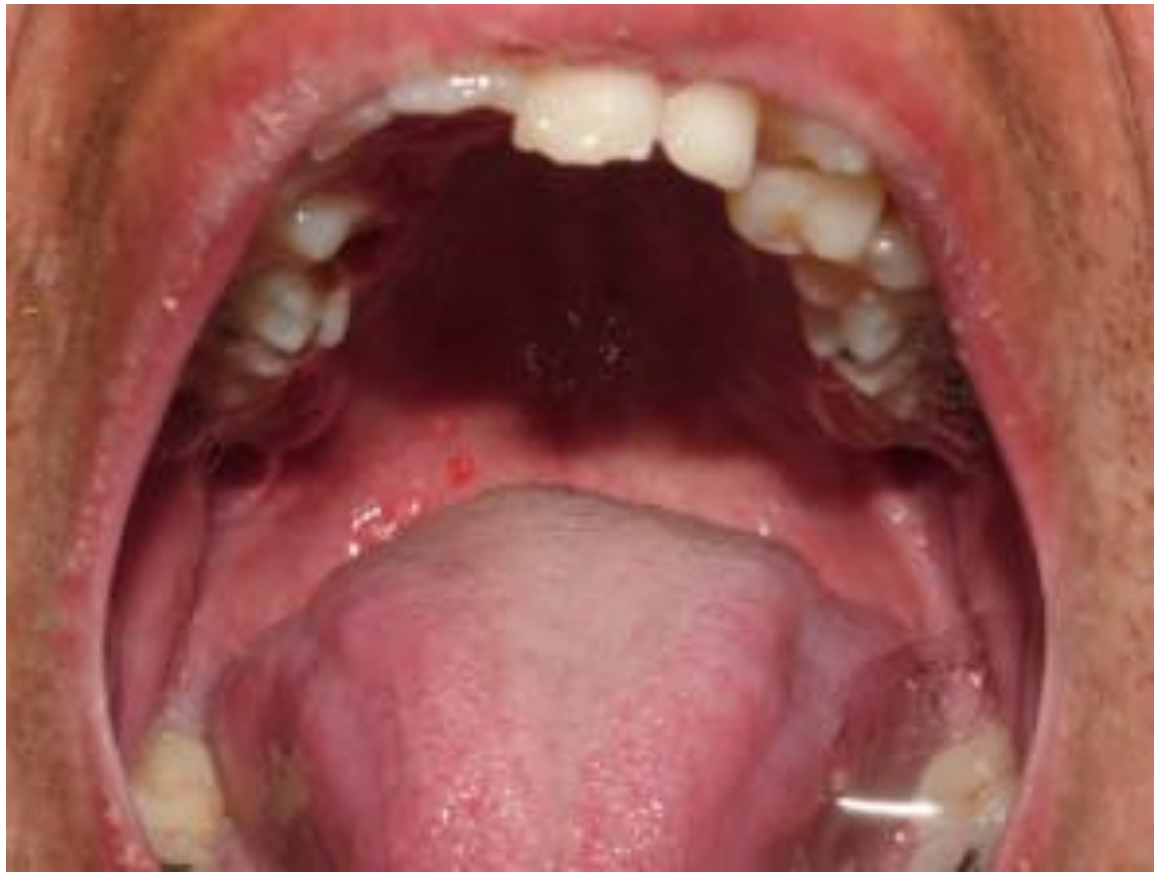




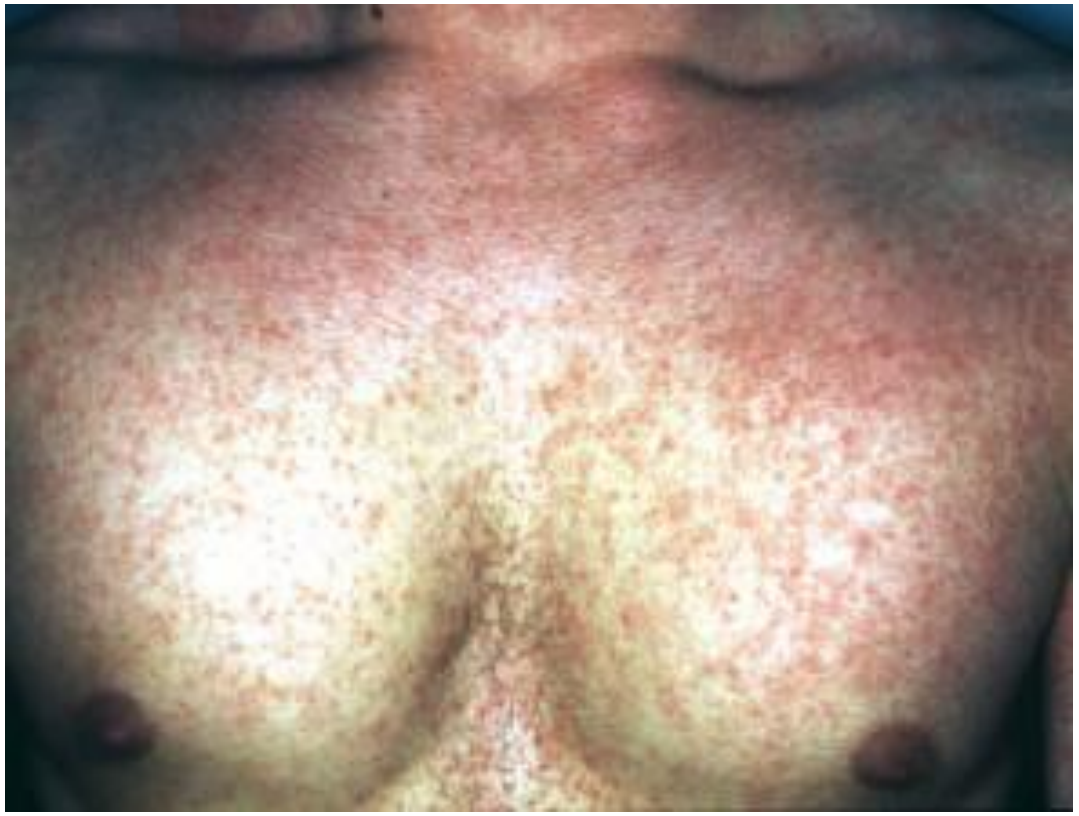


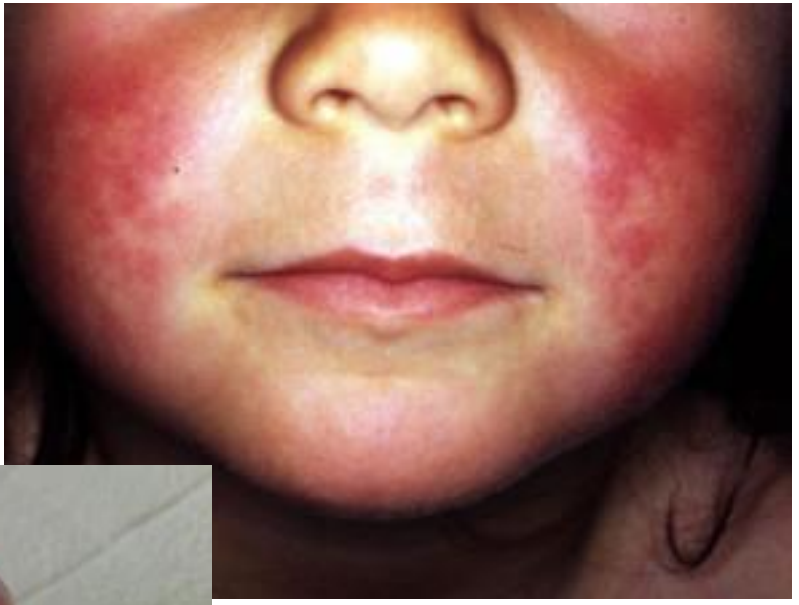


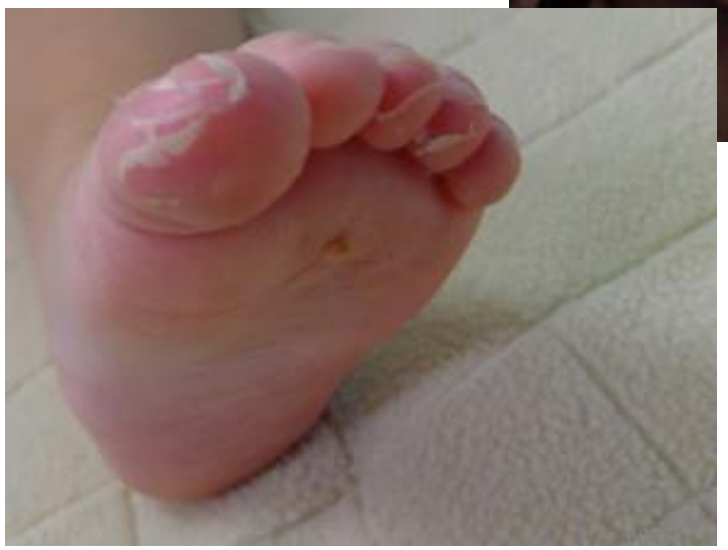




Other infectious “exanthems”

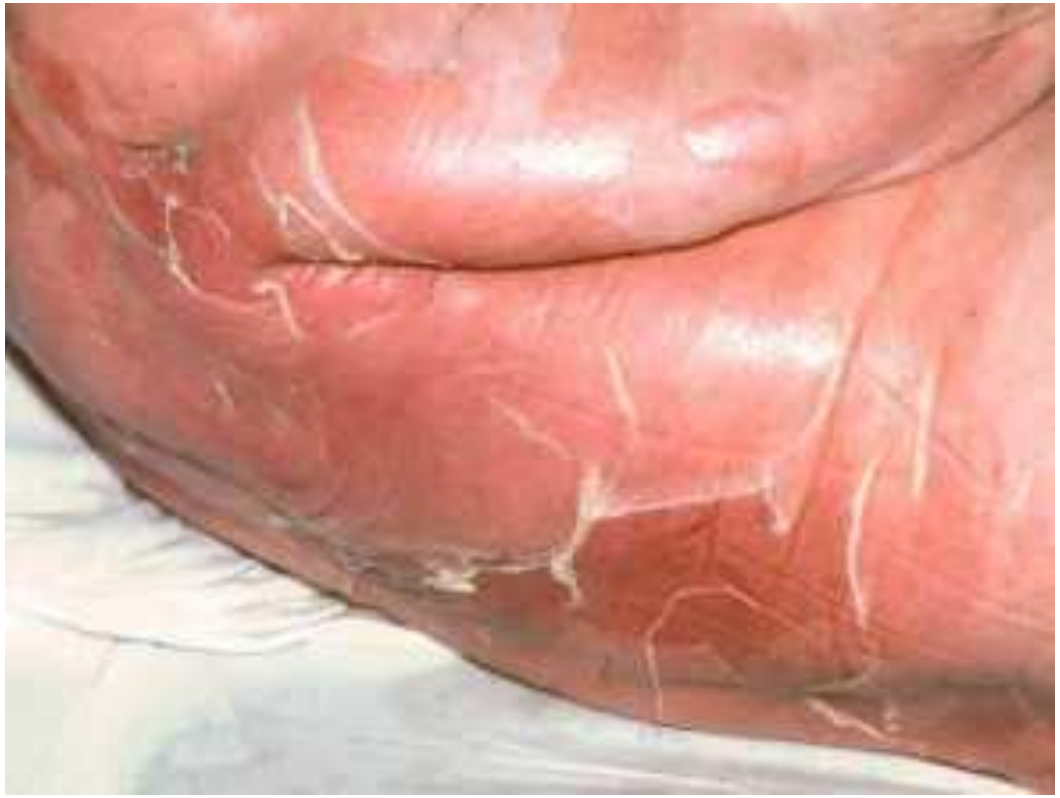






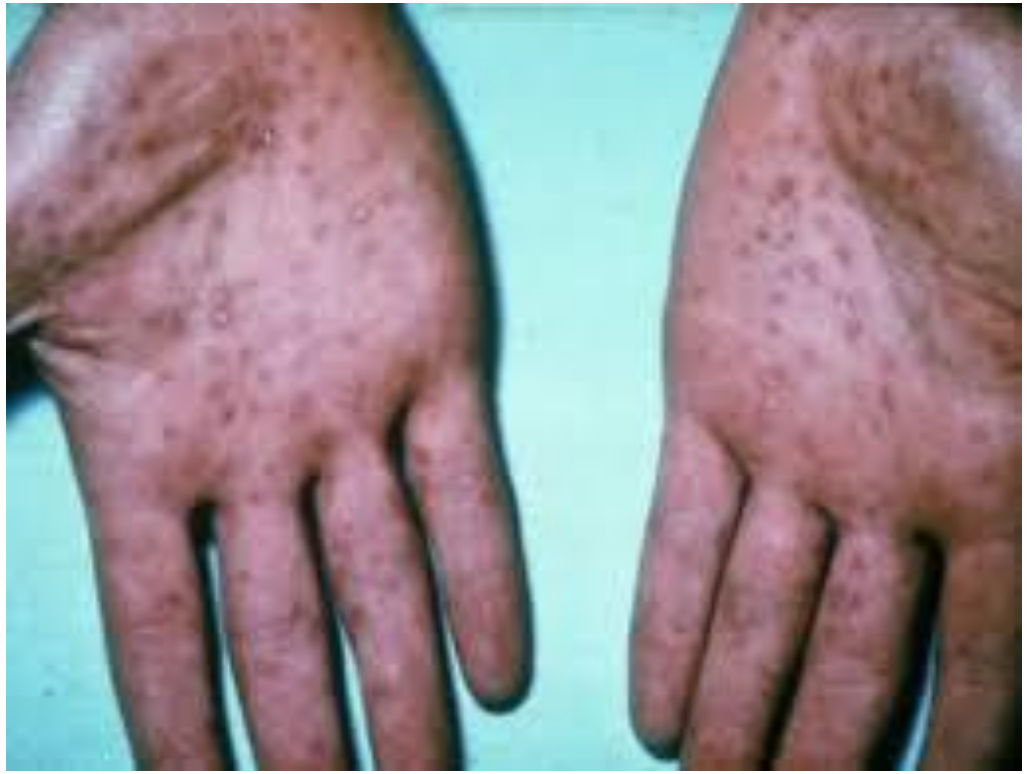
Scarlet fever – GAS toxin-mediated

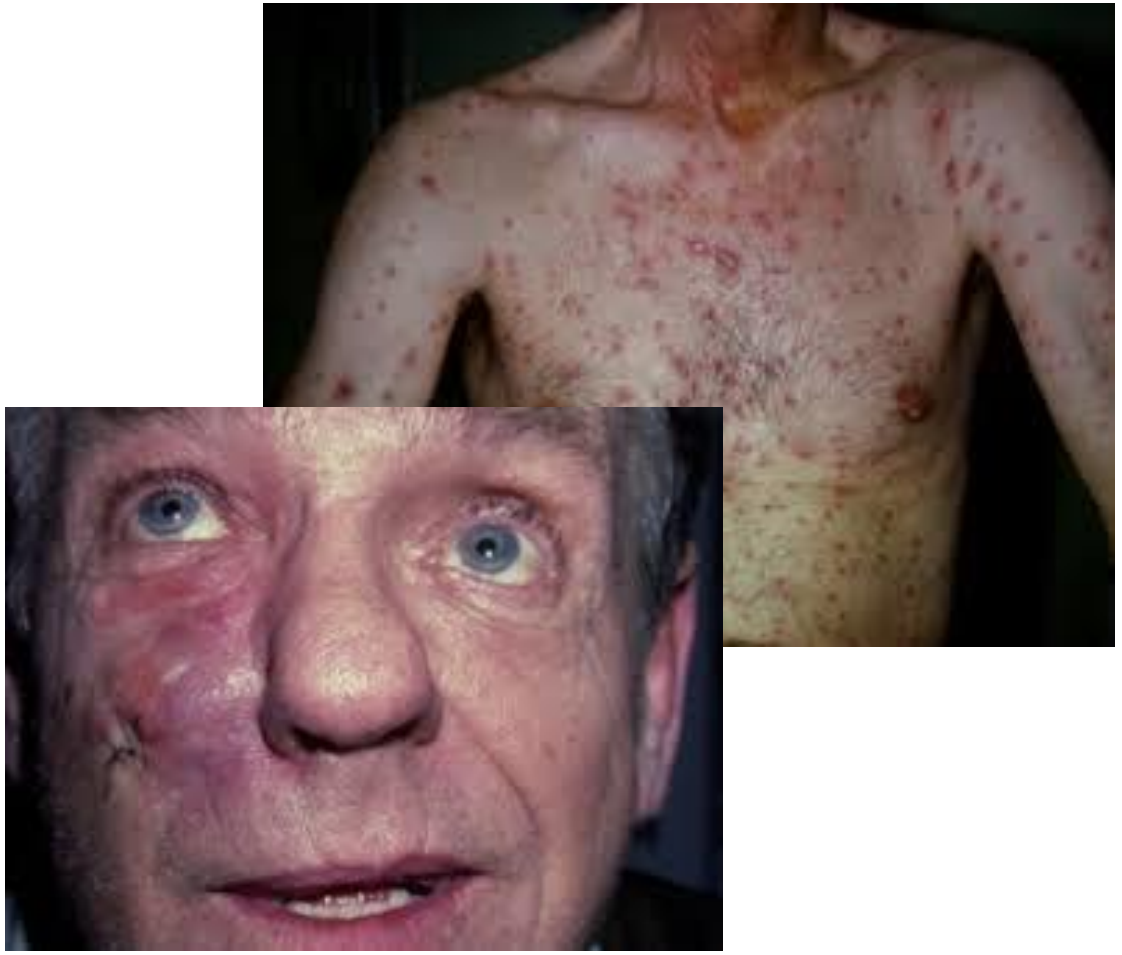
Other infectious “exanthems”



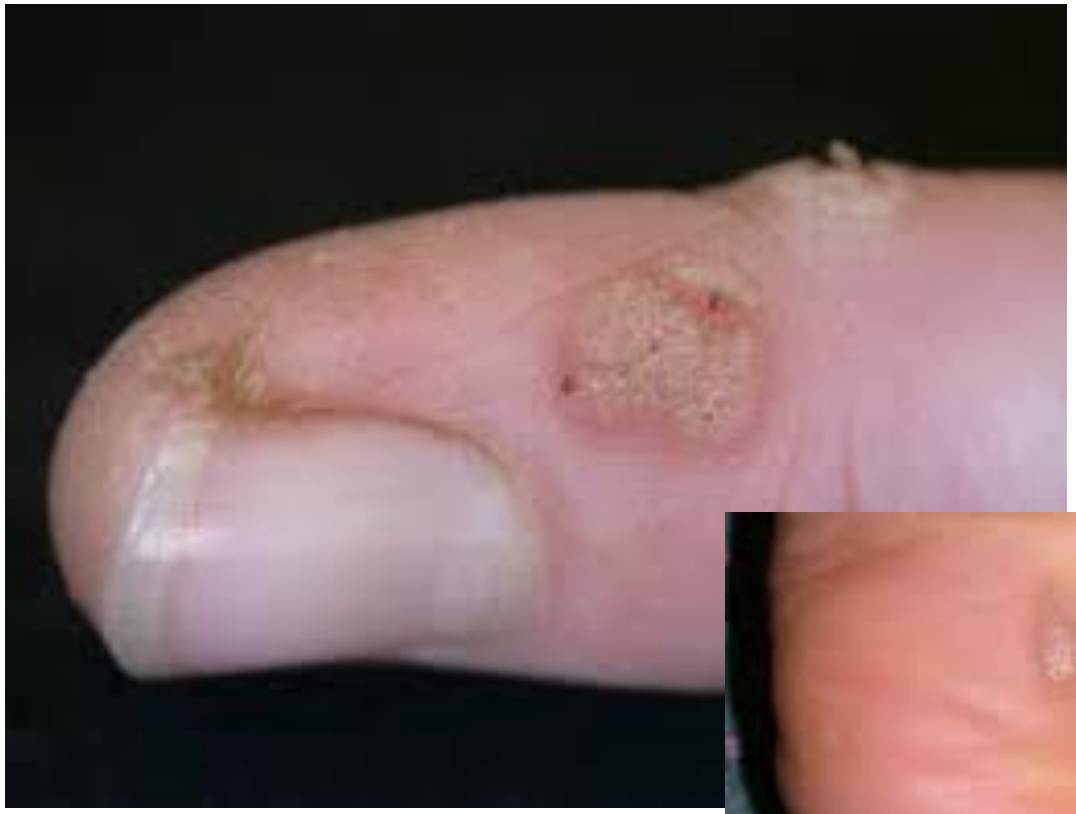
Staph “scalded skin” syndrome – exotoxin-mediated

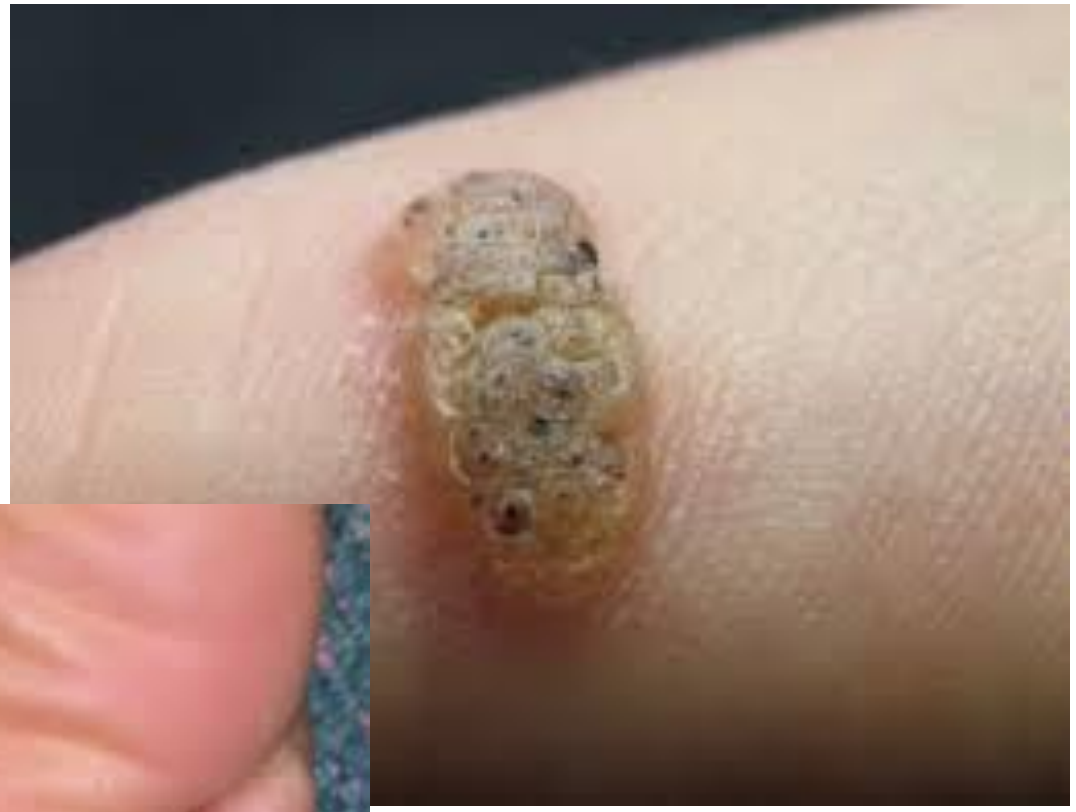
Other infectious “exanthems”

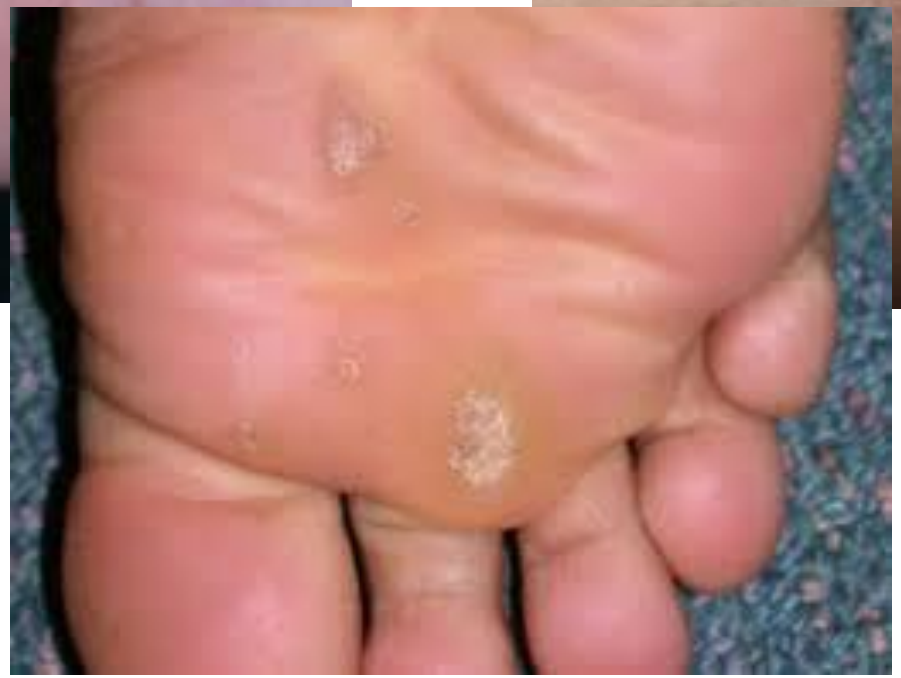


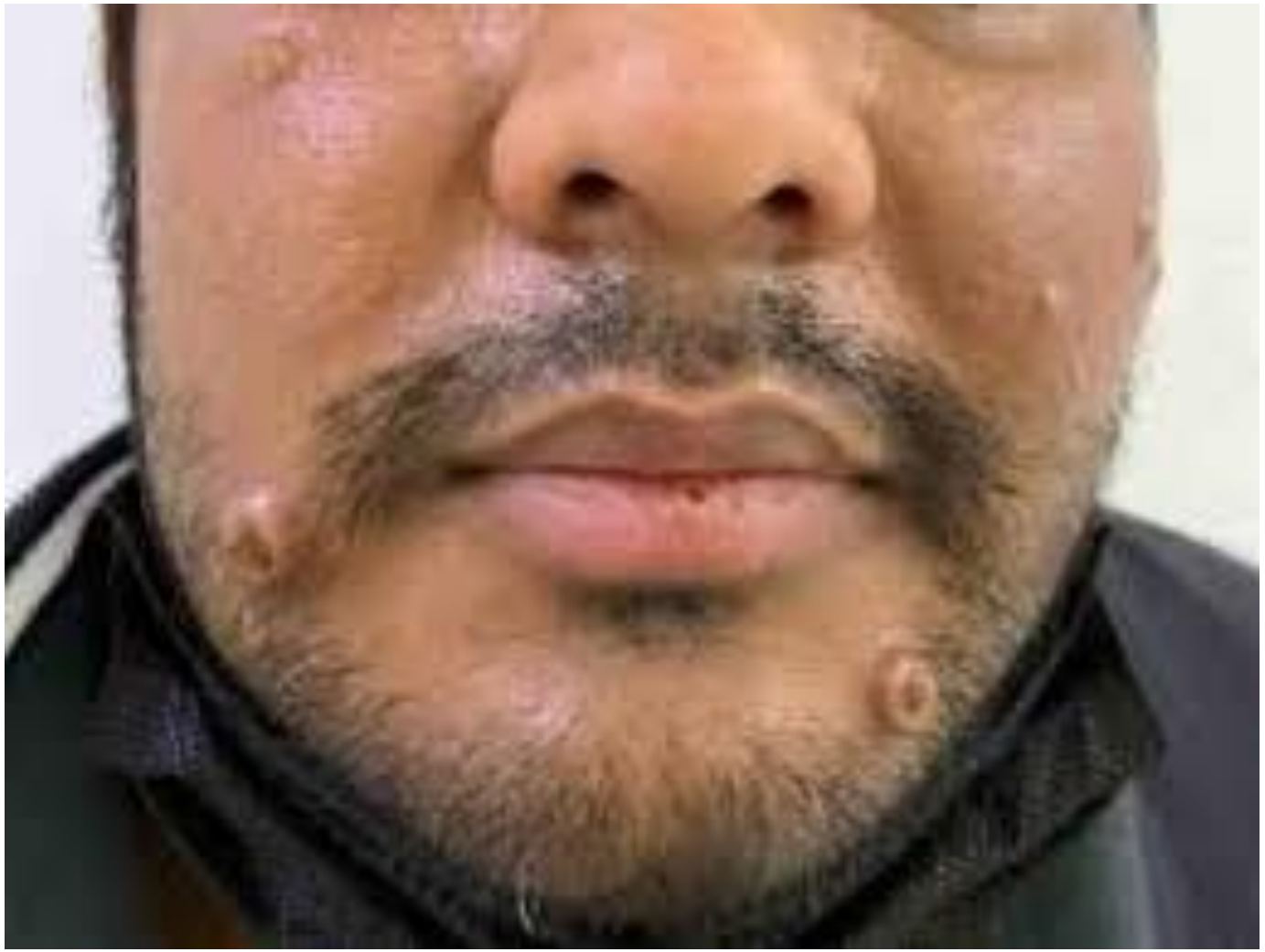


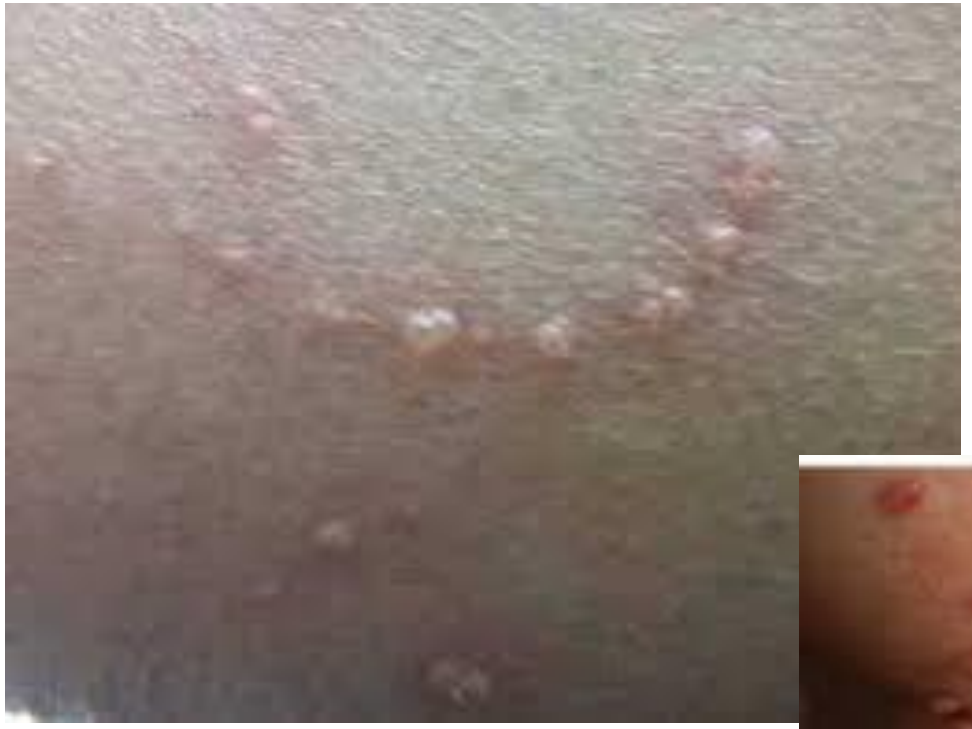
Syphilis

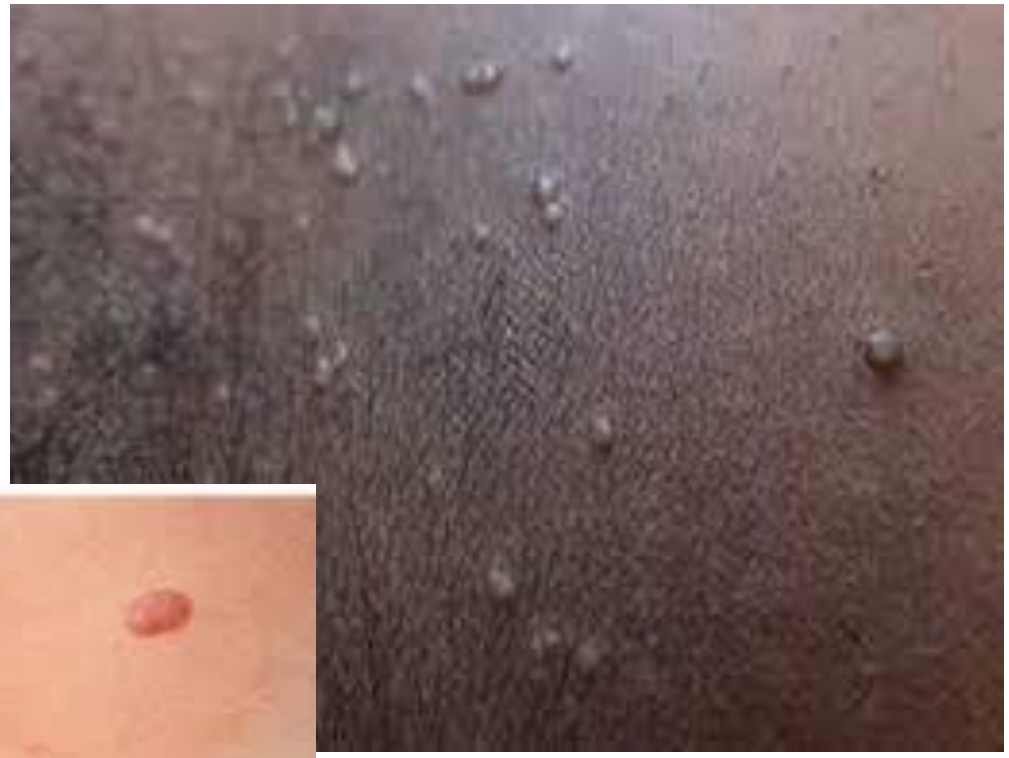


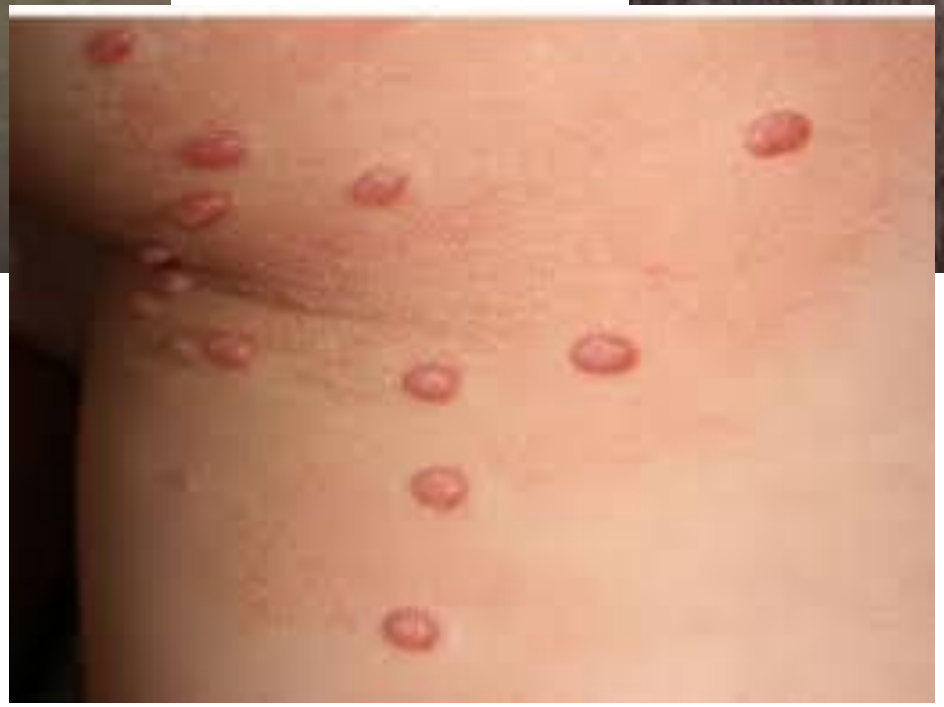


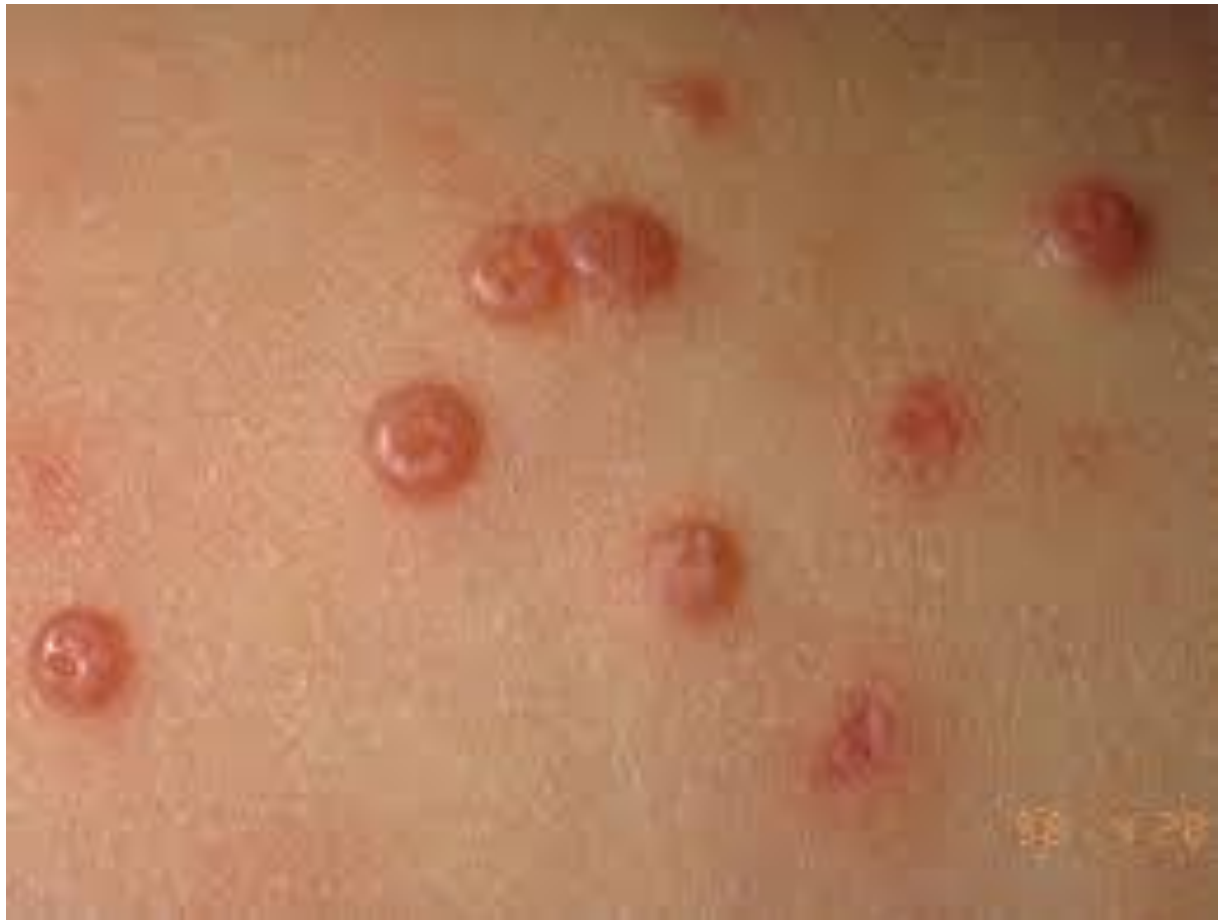


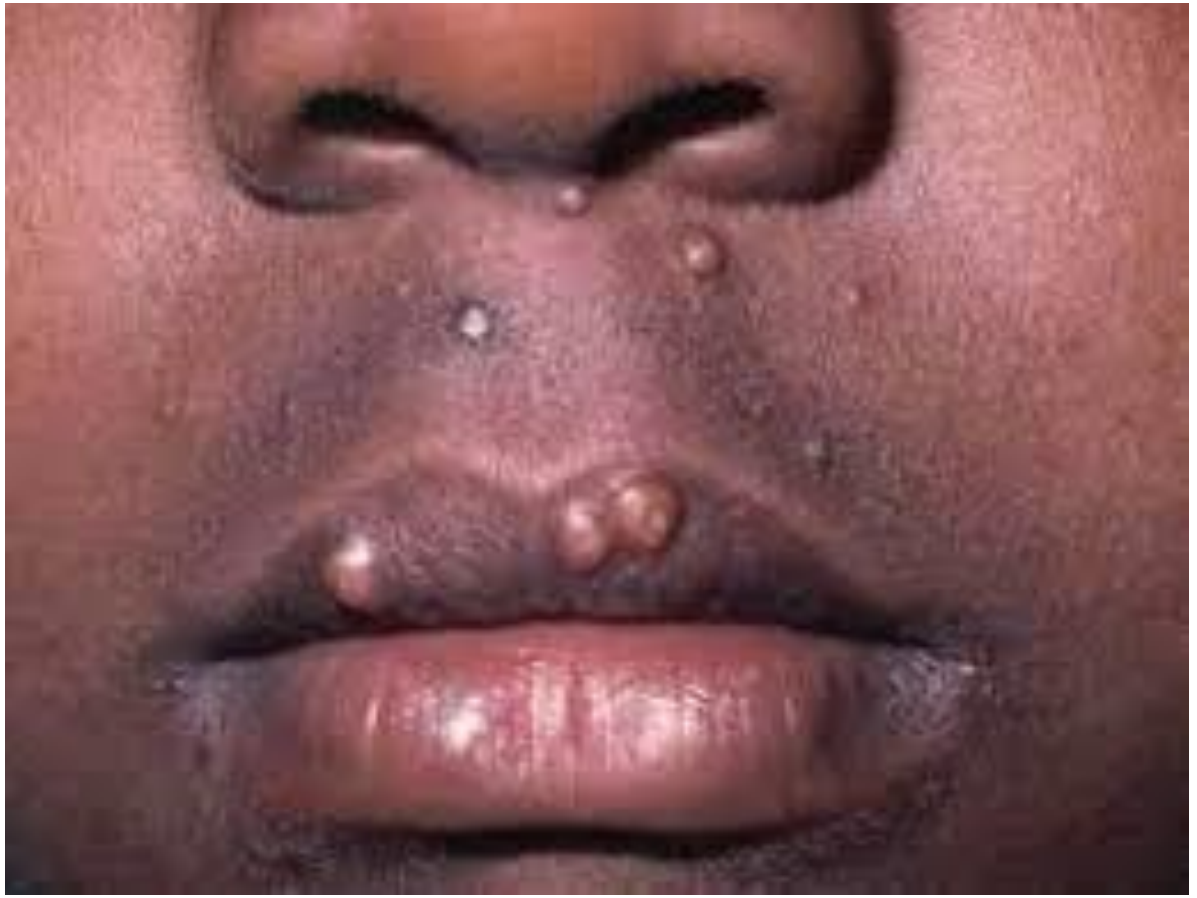












Diagnosis

What does it look like?

Diagnosis

What does it look like?

Vesicular, umbilicated

Diagnosis?

Diagnosis

What does it look like?

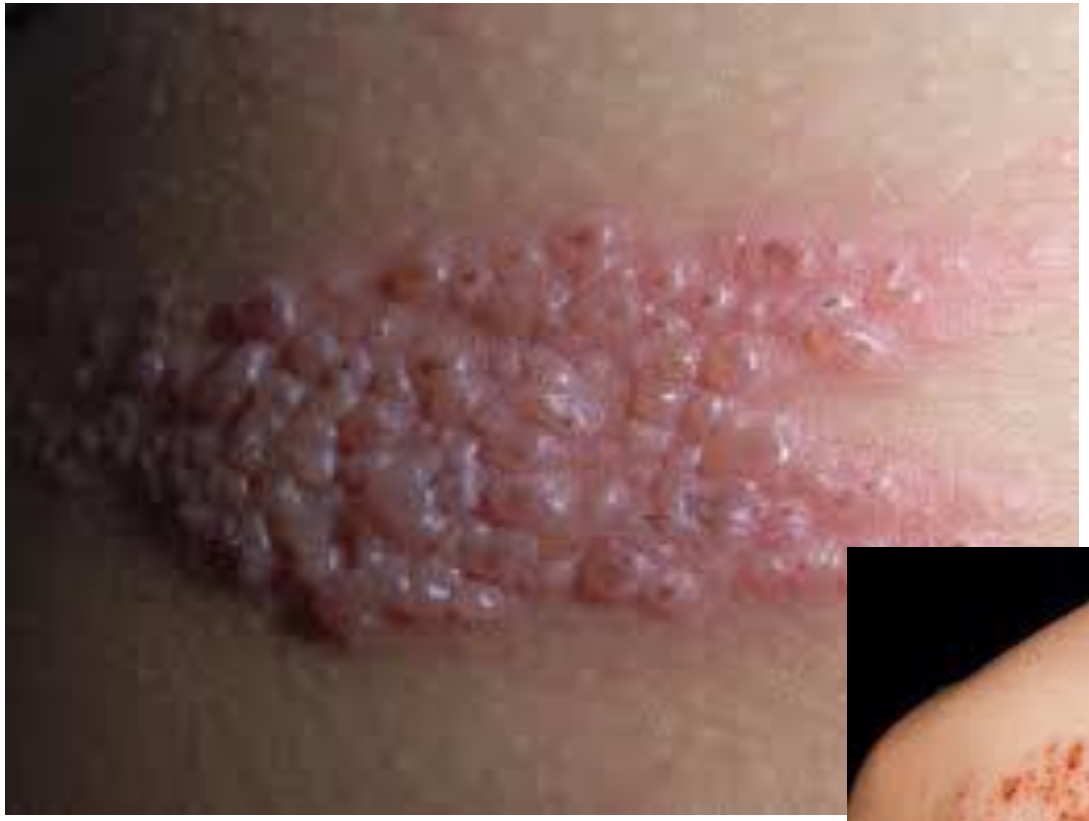
Vesicular, umbilicated

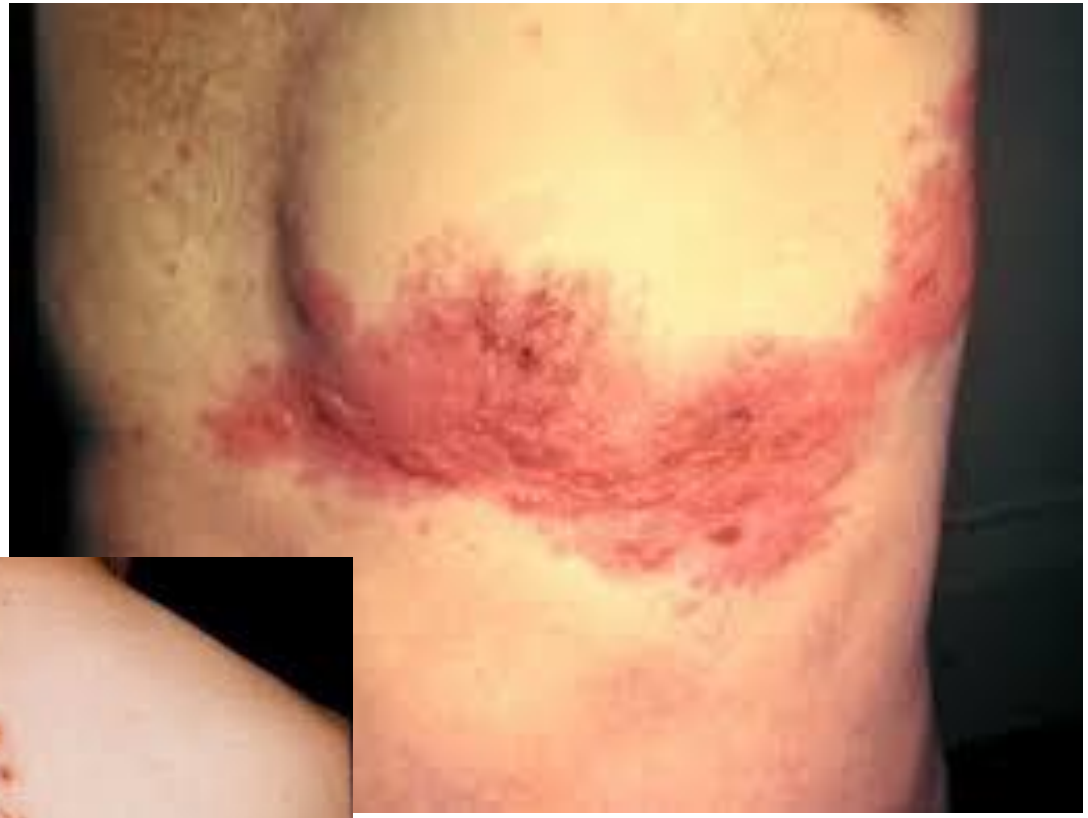
Diagnosis?

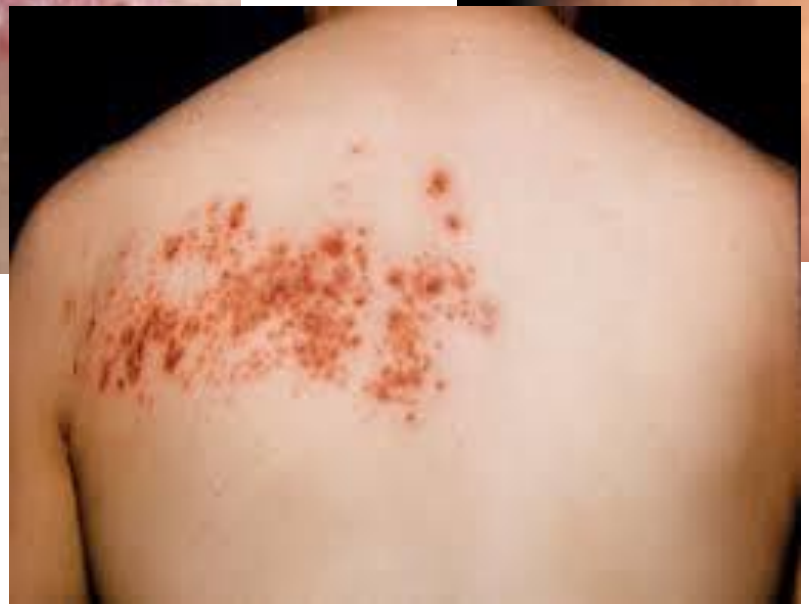
Molluscum contagiosum

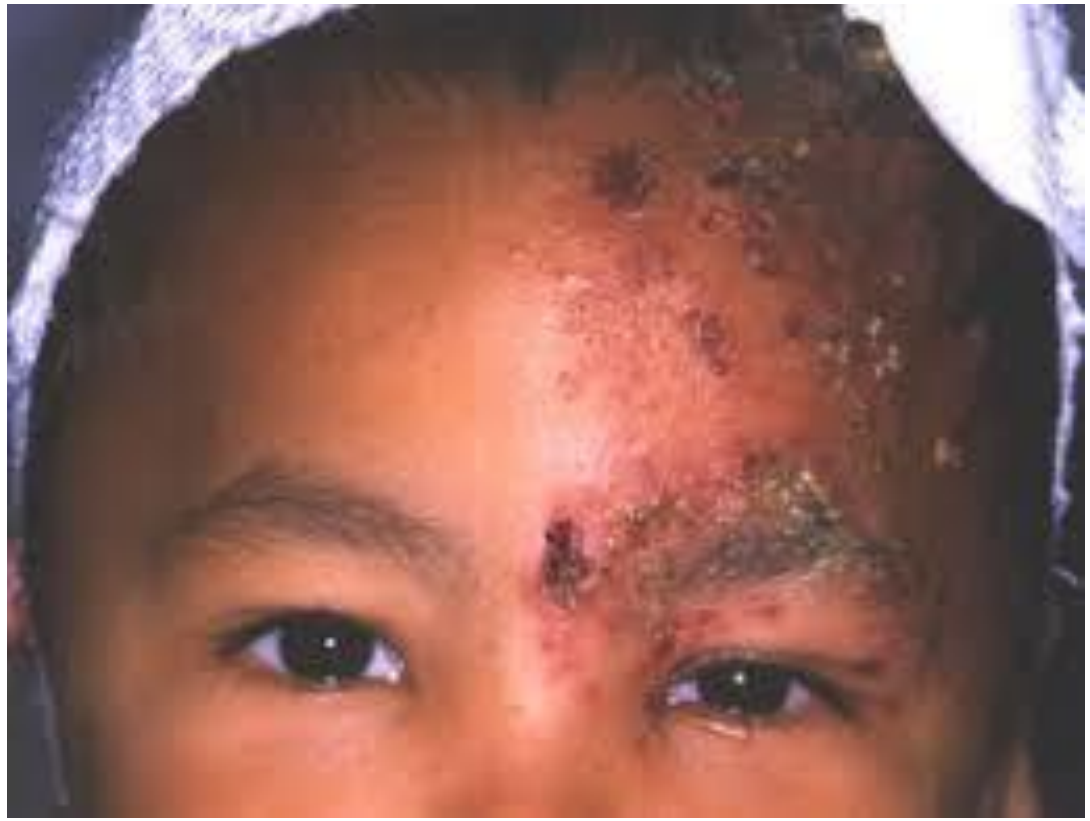
Treatment – Molluscum contagiosum

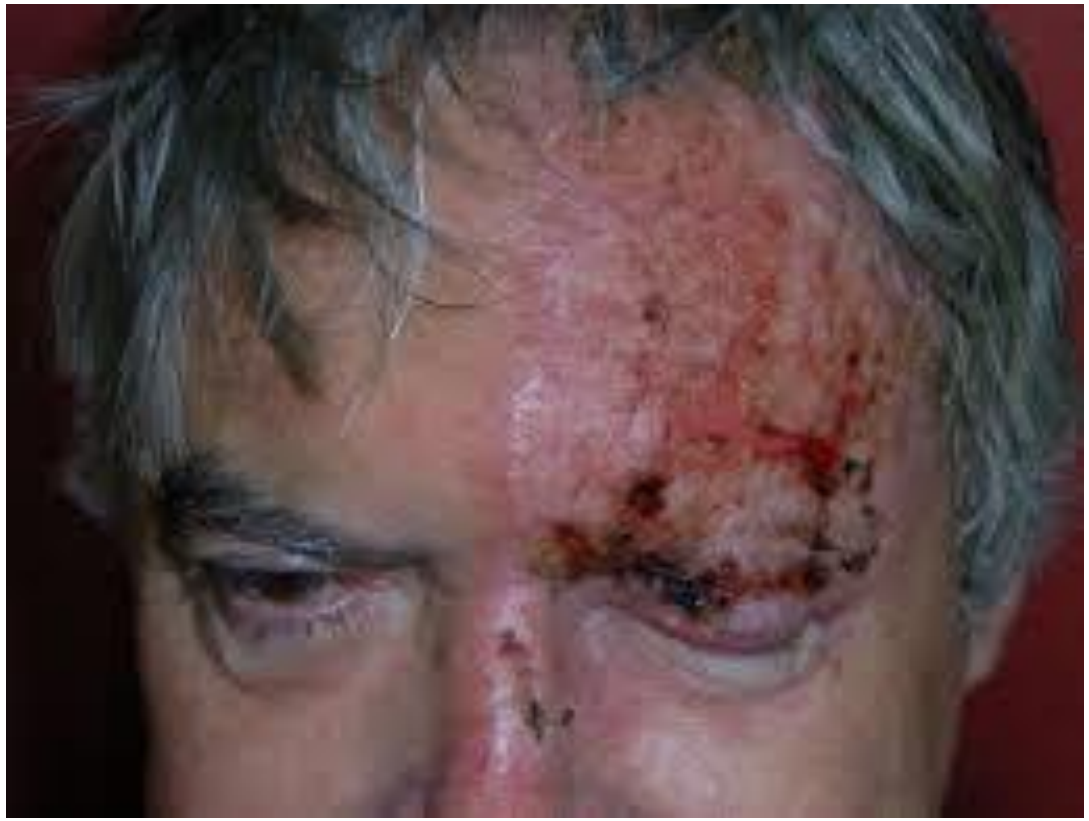
- Laser or cryotherapy
- Podophyllin
- Salicylic acid/wart paint
- Cantharidine (less scarring)
- Hydrogen peroxide or povidone iodine
- Berdazimer gel under FDA review

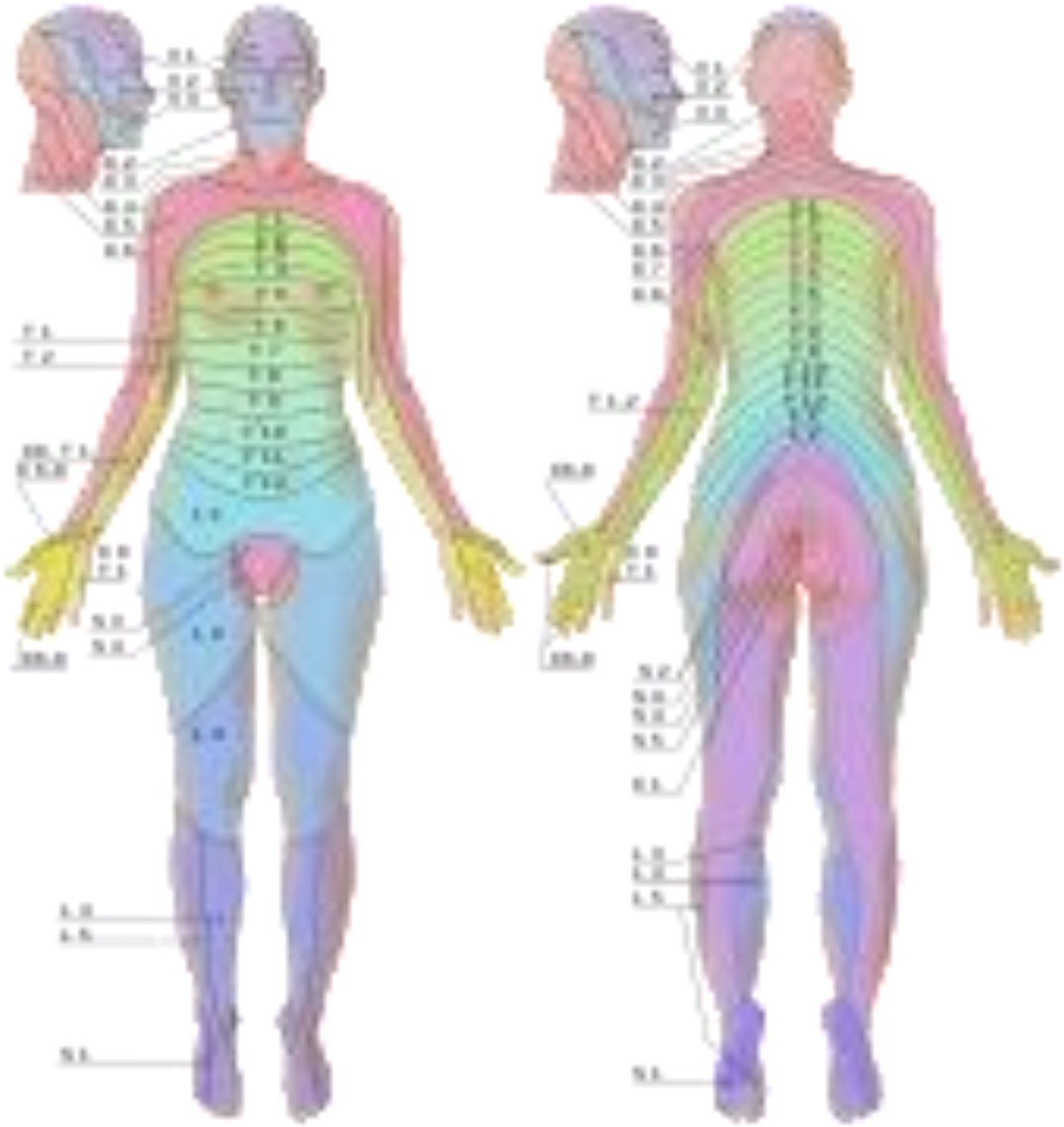












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Diagnosis

What does it look like?

Diagnosis

What does it look like?

+/- Clustered, vesicular → crusted, dermatomal

Diagnosis?

Diagnosis

What does it look like?

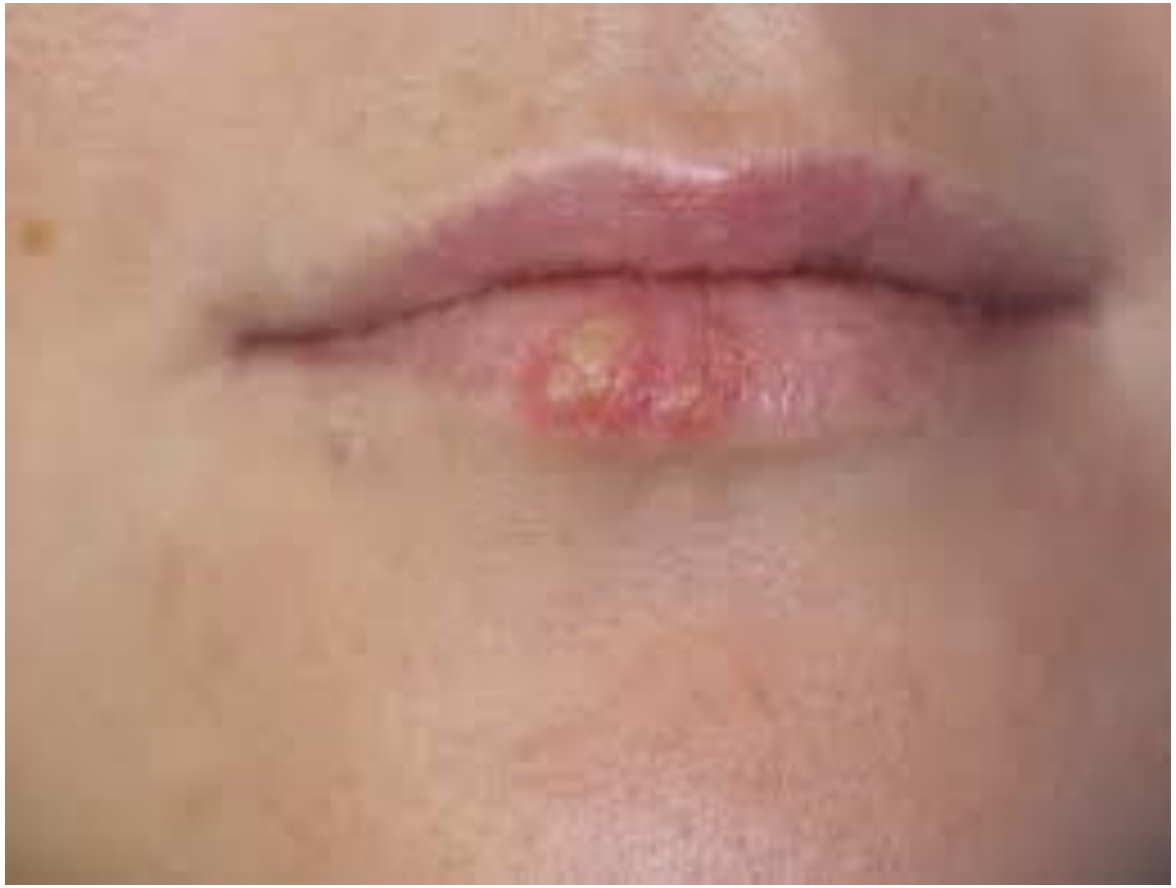
+/- Clustered, vesicular → crusted, dermatomal

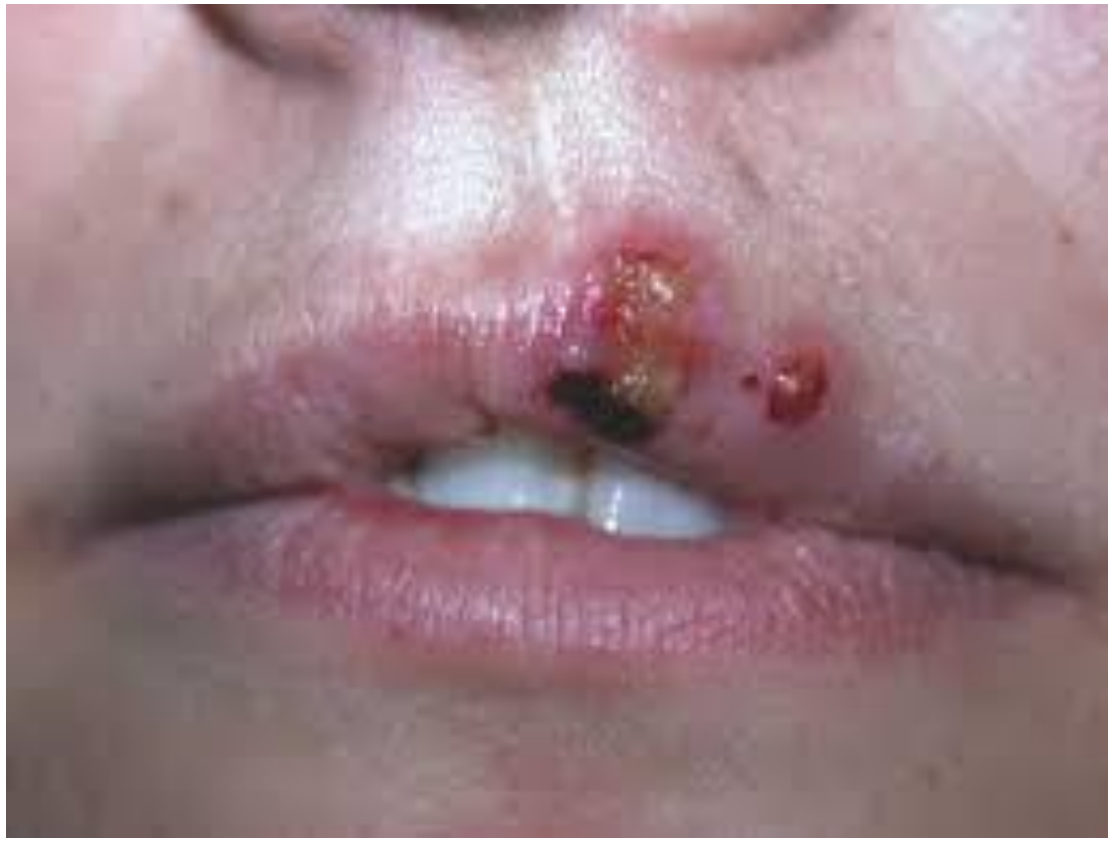
Diagnosis?

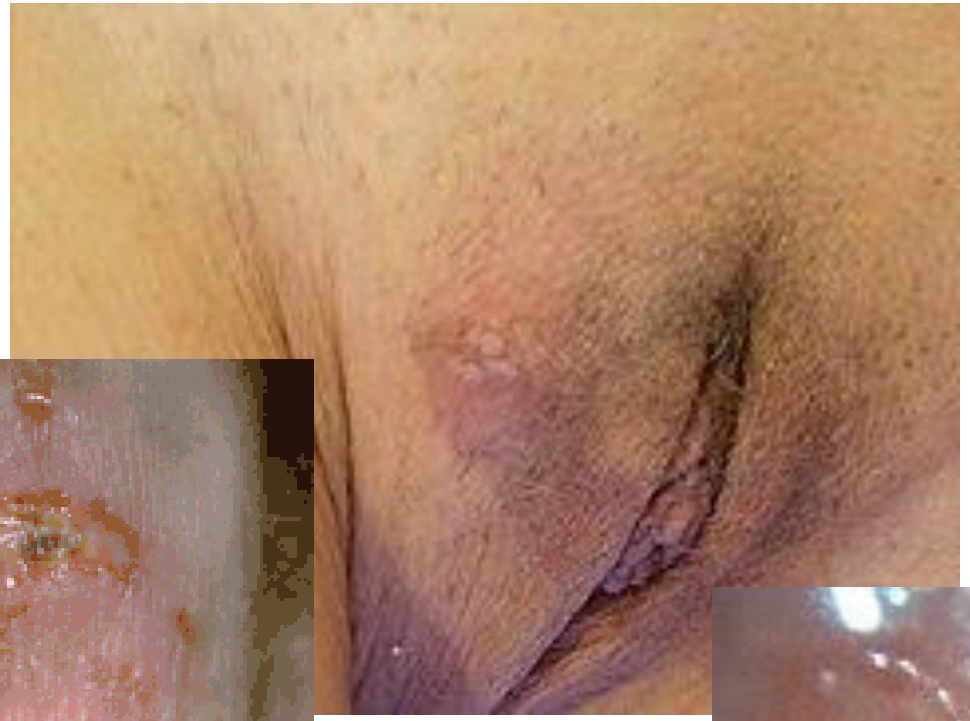
Varicella-Zoster (Shingles)

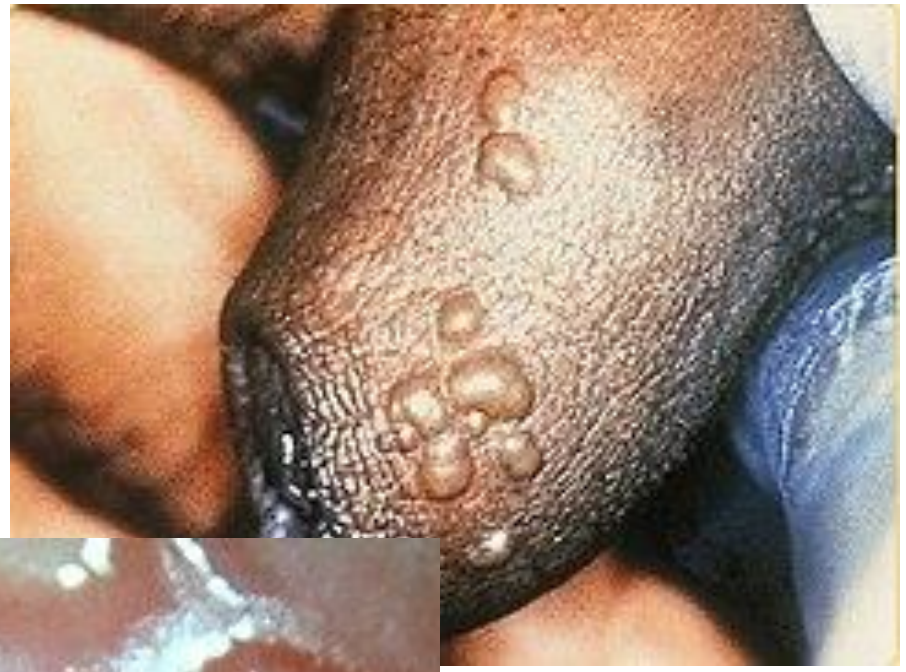
Treatment – Shingles (Varicella-Zoster virus)

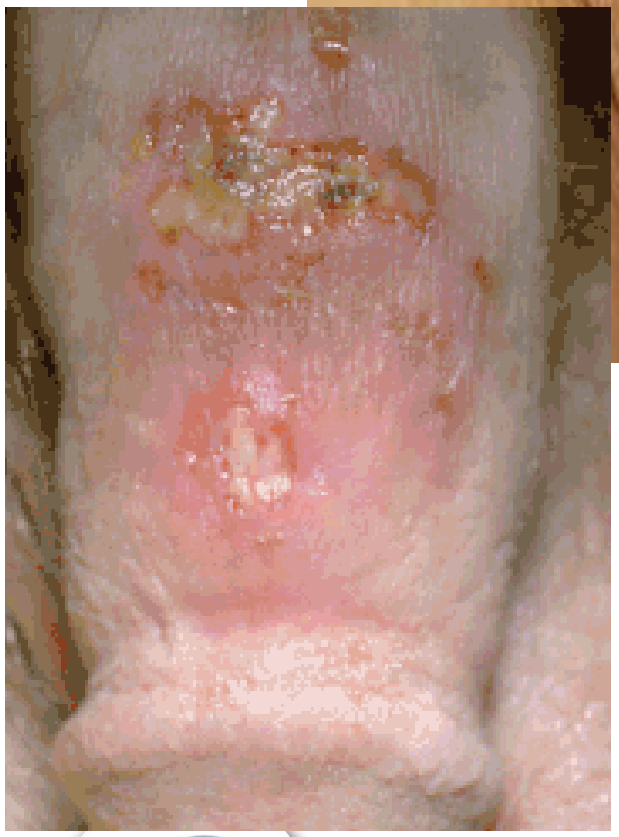
- Acyclovir 800 mg PO 5 times/day x 7-10 days
- Valacyclovir 1g PO q8 hr x 7 days
- Famciclovir 500 mg PO q8 hr x 7 days
- Tip of nose → ophthalmic involvement
- Add PO steroids for Ramsay Hunt Syndrome (VZV causing Bells Palsy – CNVII)

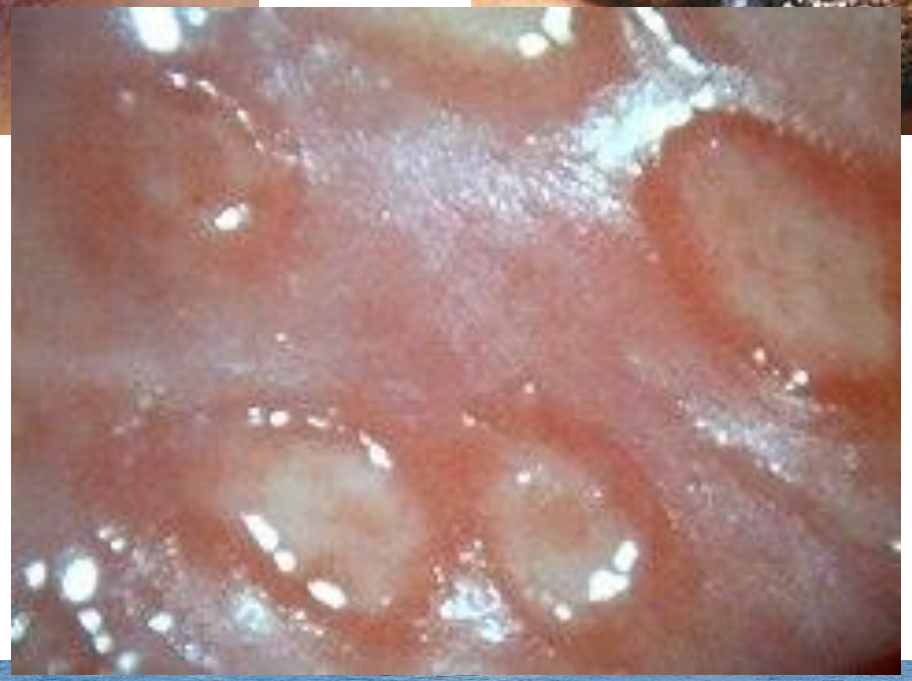












Diagnosis

What does it look like?

Diagnosis

What does it look like?

Vesicular/clustered → ulcerative

Diagnosis?

Diagnosis

What does it look like?

Vesicular/clustered → ulcerative

Diagnosis?

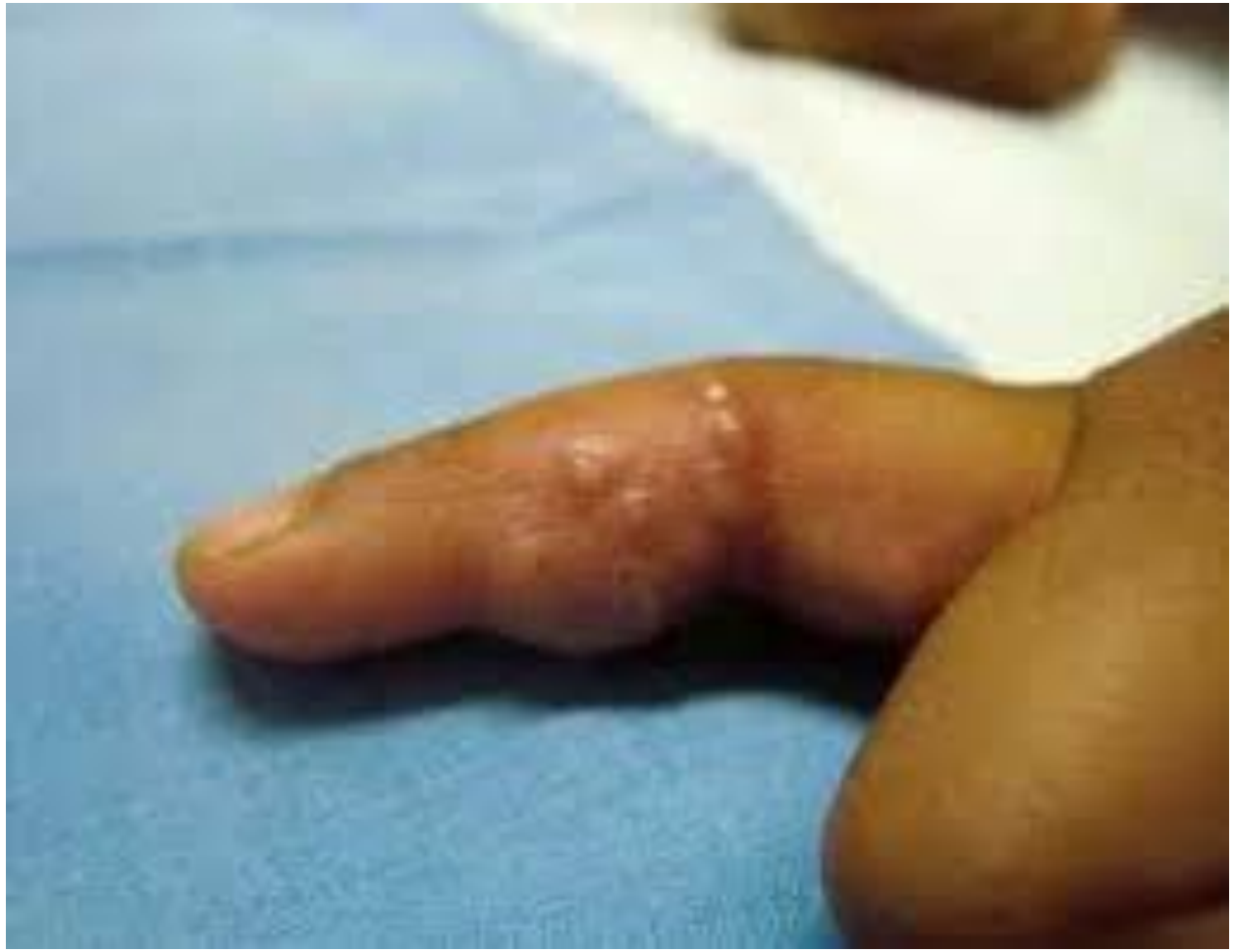
Herpes simplex

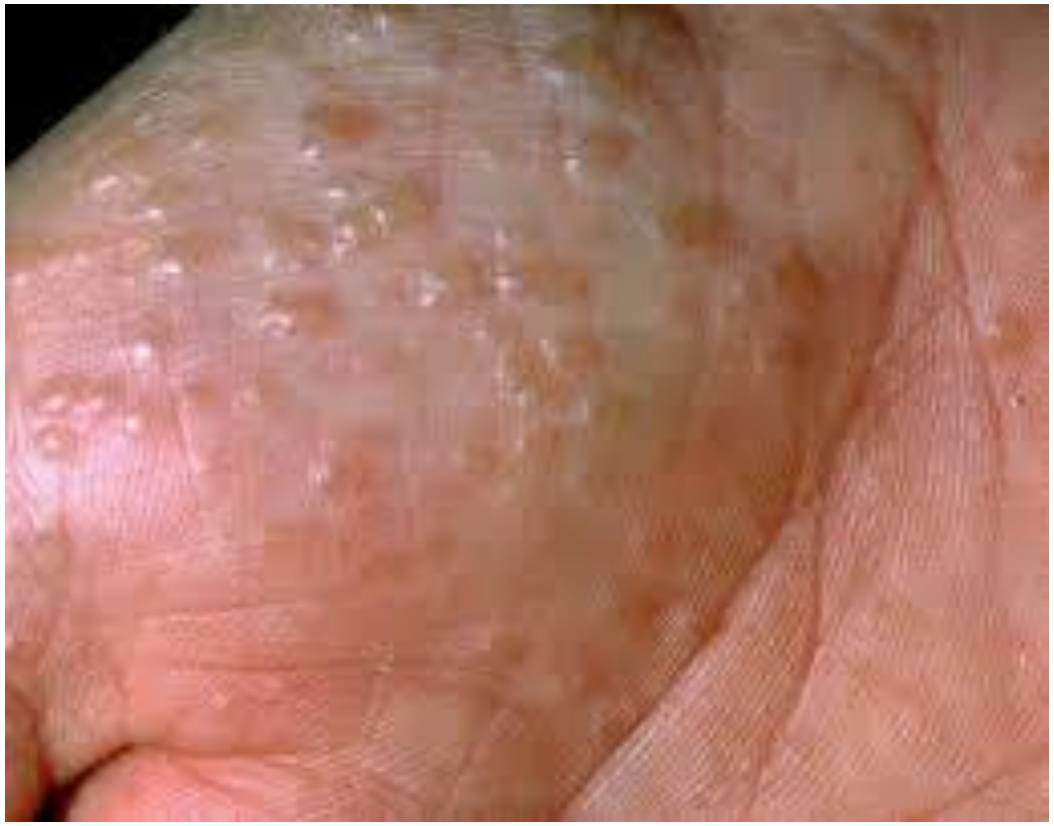
Treatment – Herpes labialis

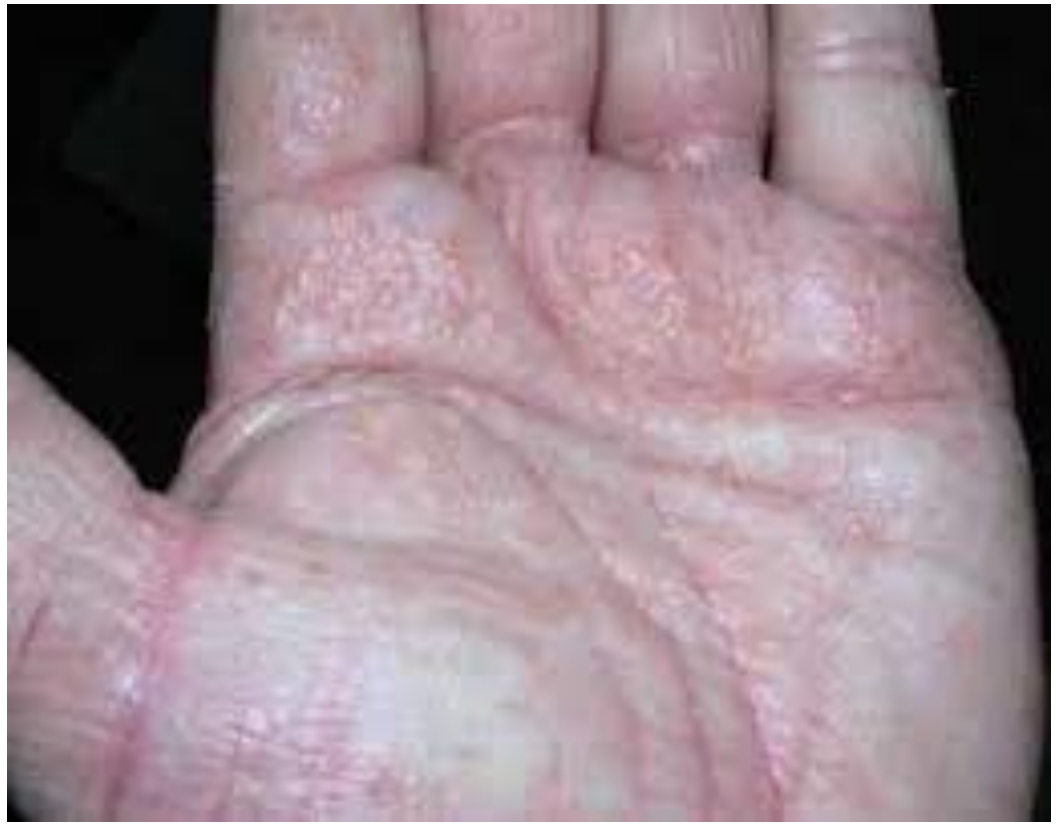
- Valacyclovir 2 g PO q12 hr x 1 day
- Famciclovir
  - *Initial* 250 mg PO q8 hrs x 7-10 days
  - *Recurrent* 1500 mg PO once (within 1 hour of symptoms)
  - *Suppression* 250 mg PO q12 hrs x 12 months
- Penciclovir 1% cream AAA q2 hrs while awake for 4 days (start ASAP)

Treatment – Genital herpes

- Initial episode
  - Acyclovir 200 mg PO 5 times/day x 10 days or 400 mg PO q8hr x 7-10 days
  - Valacyclovir 1g PO q12 hr x 10 days
  - Famciclovir 250 mg PO q8 hr x 7-10 days (off-label)
- Recurrence (initiate ASAP at signs/sxs or recurrence)
  - Acyclovir 200 mg PO 5 times/day x 5 days
  - Valacyclovir 500 mg PO q12 hr x 3 days (no efficacy data > 24 hours after onset)
  - Famciclovir 1000 mg PO q12 hr x 1 day (initiated within 6 hours)







Dyshidrotic eczema

Diagnosis

What does it look like?

Diagnosis

What does it look like?

Moist, bubbly (vesicular → pustular/crusty)

Diagnosis

What does it look like?

Moist, bubbly (vesicular → pustular/crusty)

fingers only

Diagnosis?

Diagnosis

What does it look like?

Moist, bubbly (vesicular → pustular/crusty)

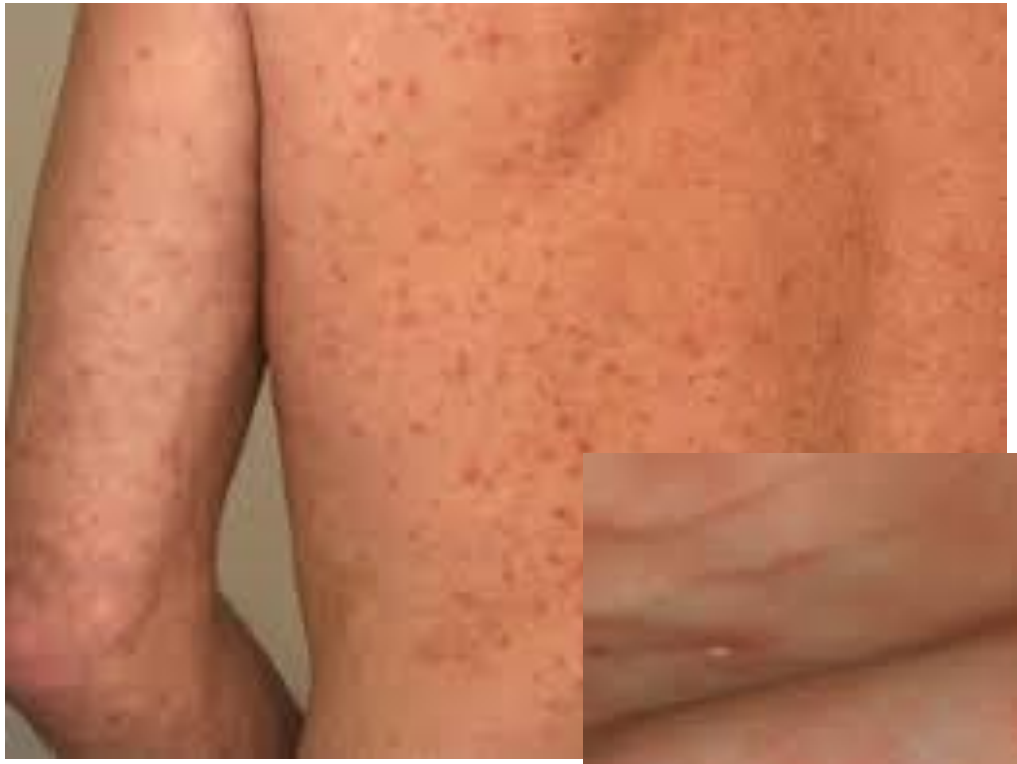
fingers only

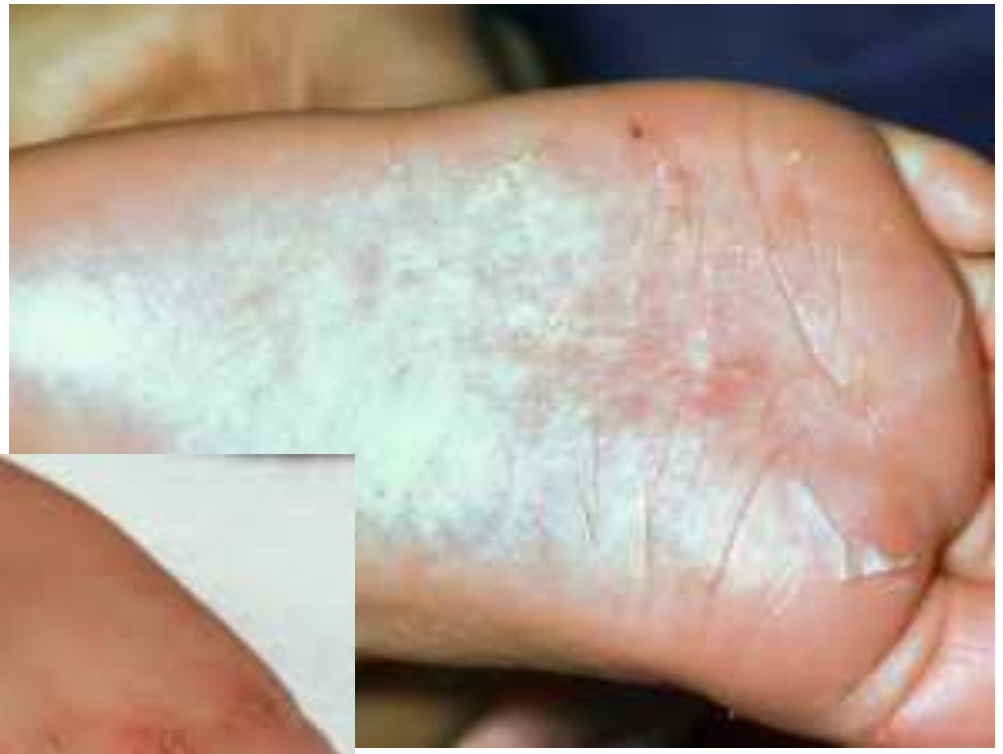
Diagnosis?

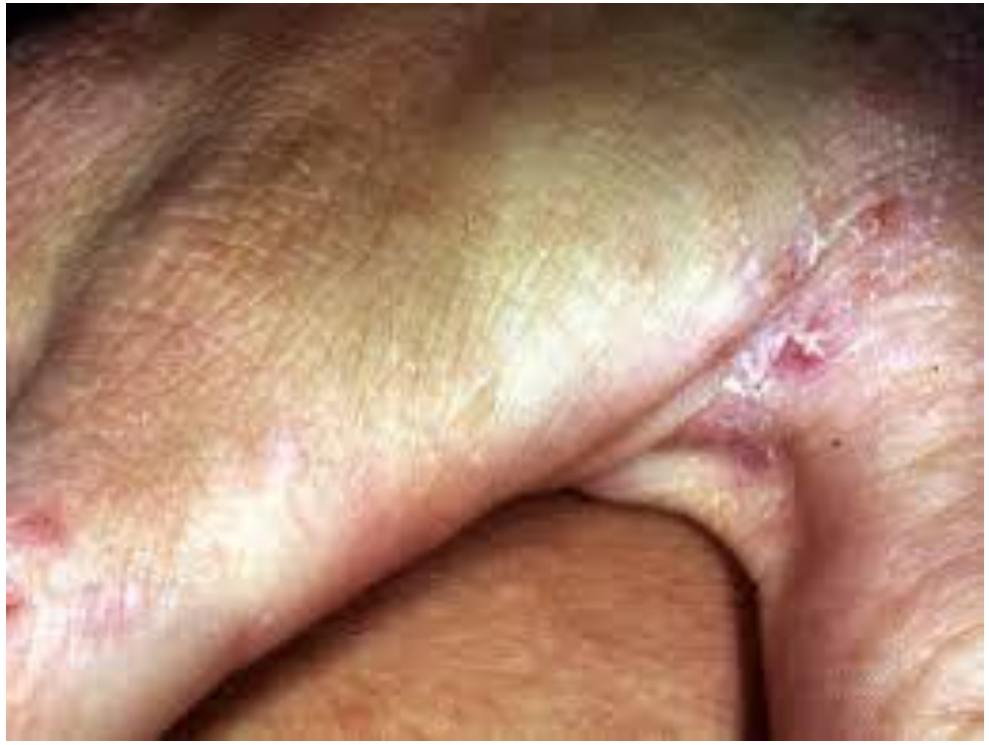
Herpetic whitlow

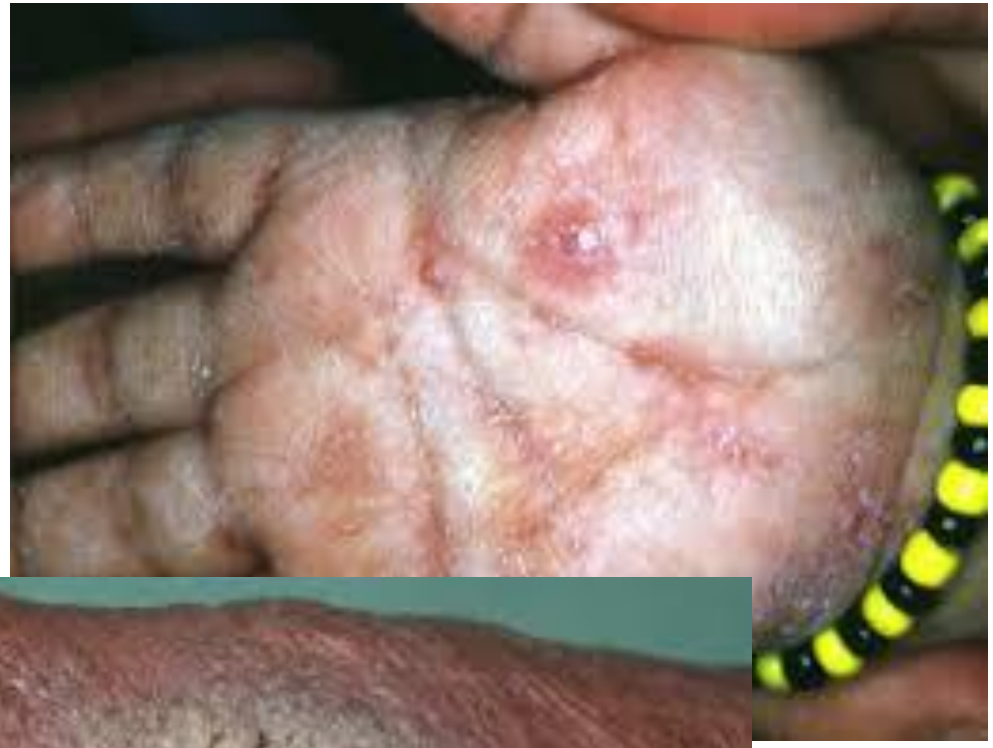
UC Treatment – Herpetic whitlow

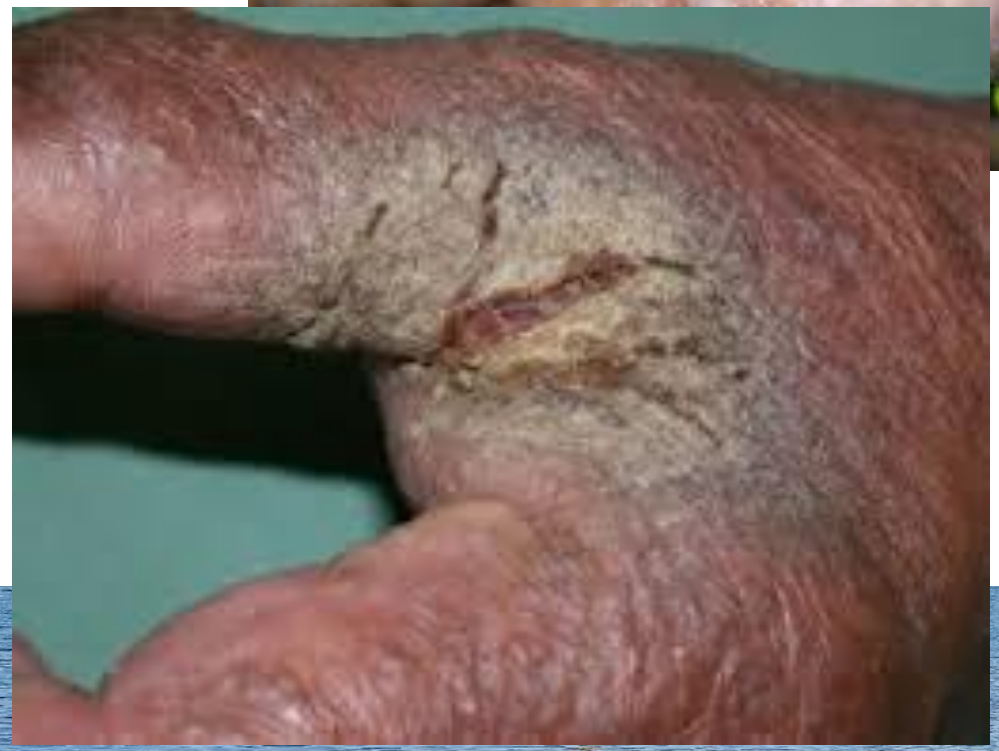
- Be mindful of paronychia, felon
- No incision and drainage
- Limit further contagion
- Consider antiviral treatment similar to other HSV infections if within 48 hours of onset











Diagnosis

What does it look like?

Diagnosis

What does it look like?

Dry, peely, red, burrows/inclusions, excoriated

Diagnosis?

Diagnosis

What does it look like?

Dry, peely, red, burrows/inclusions, excoriated

Diagnosis?

Scabies (*Sarcoptes scabiei* var. *hominis*)

A: Confirmed scabies is diagnosed if there is at least one of: A1: Mites, eggs or faeces on light microscopy of skin samples A2: Mites, eggs or faeces visualized on an individual using a high-powered imaging device A3: Mite visualised on an individual using dermoscopy.
B: Clinical scabies is diagnosed if there is at least one of: B1: Scabies burrows B2: Typical lesions affecting male genitalia B3: Typical lesions in a typical distribution and two history features.
C: Suspected scabies is diagnosed if there is one of: C1: Typical lesions in a typical distribution and one history feature C2: Atypical lesions or atypical distribution and two history features.
History features are: H1: Itch H2: Positive contact history with an individual who has an itch or typical lesions in a typical distribution.

from: https://dermnetnz.org

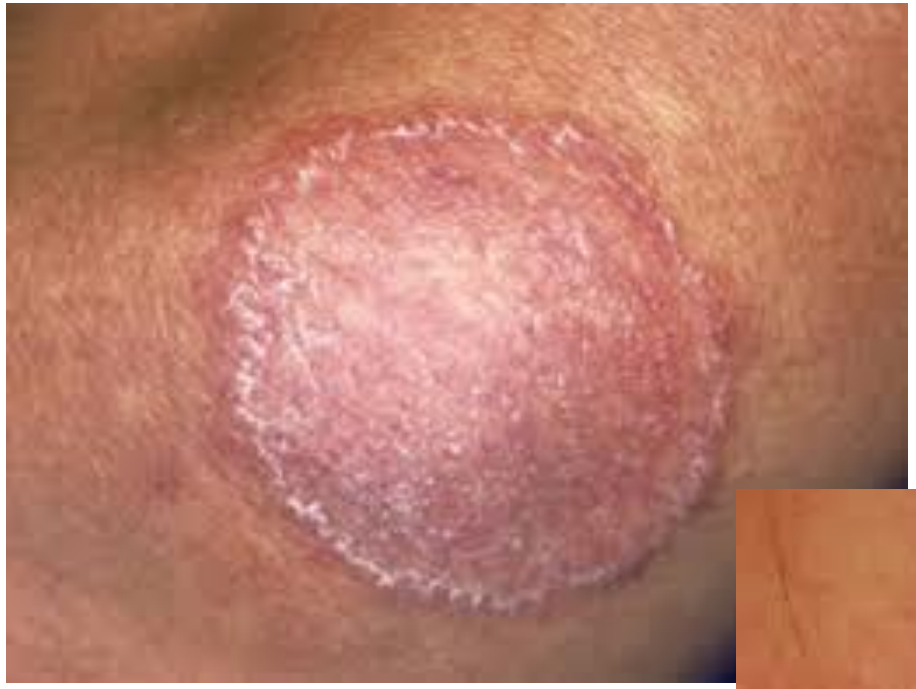
Burrow Ink Test for Scabies

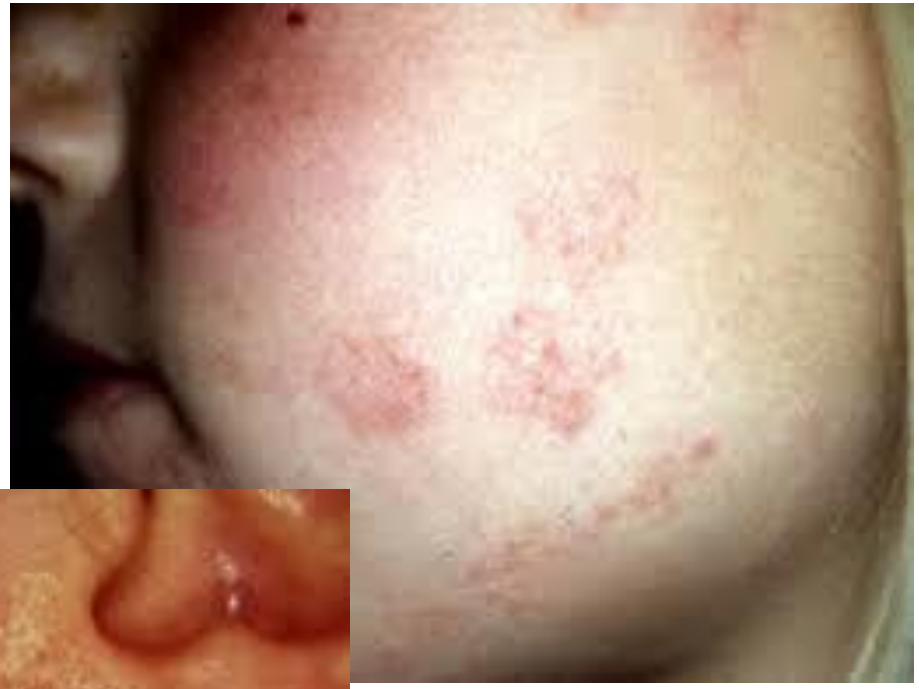
Daan Rauwerdink, M.D., and
Deepak Balak, M.D., Ph.D

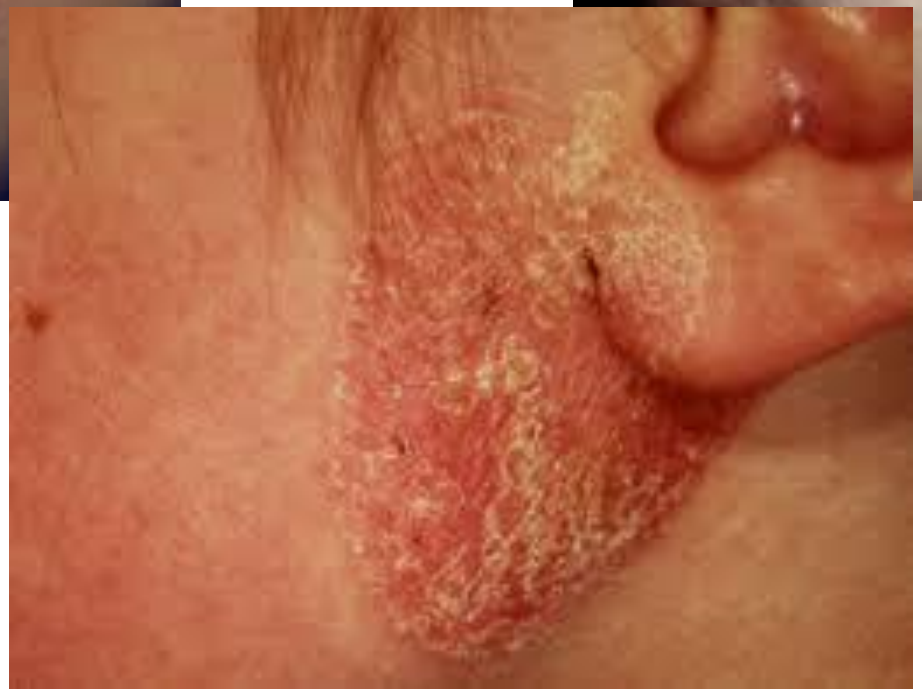
August 17, 2023
N Engl J Med 2023; 389:e12
DOI: 10.1056/NEJMicm2216654

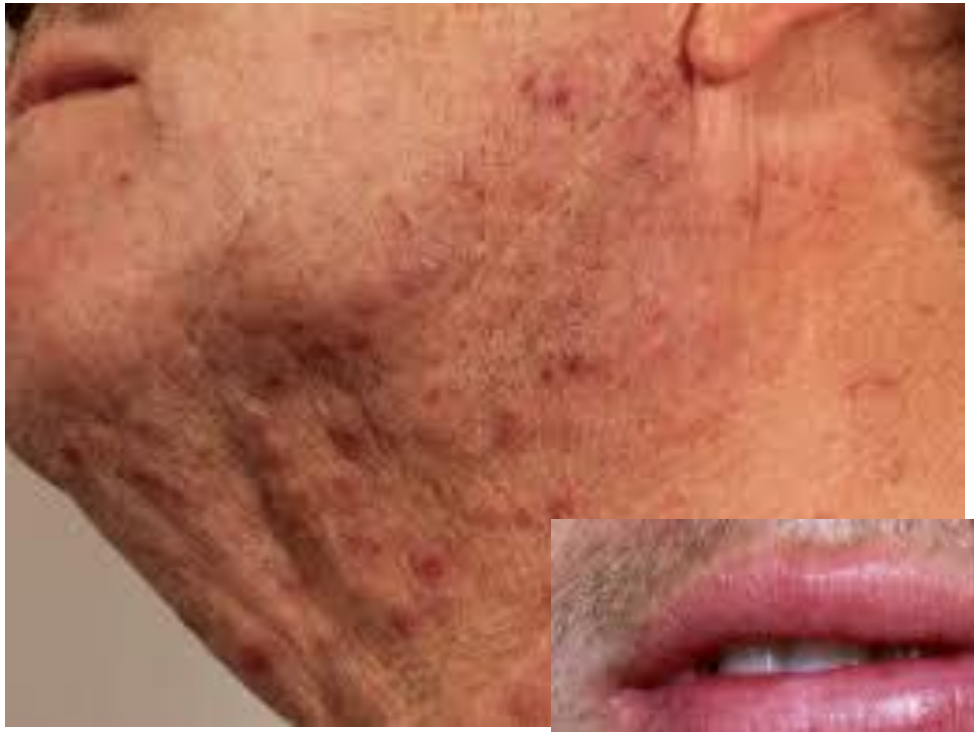
Treatment –

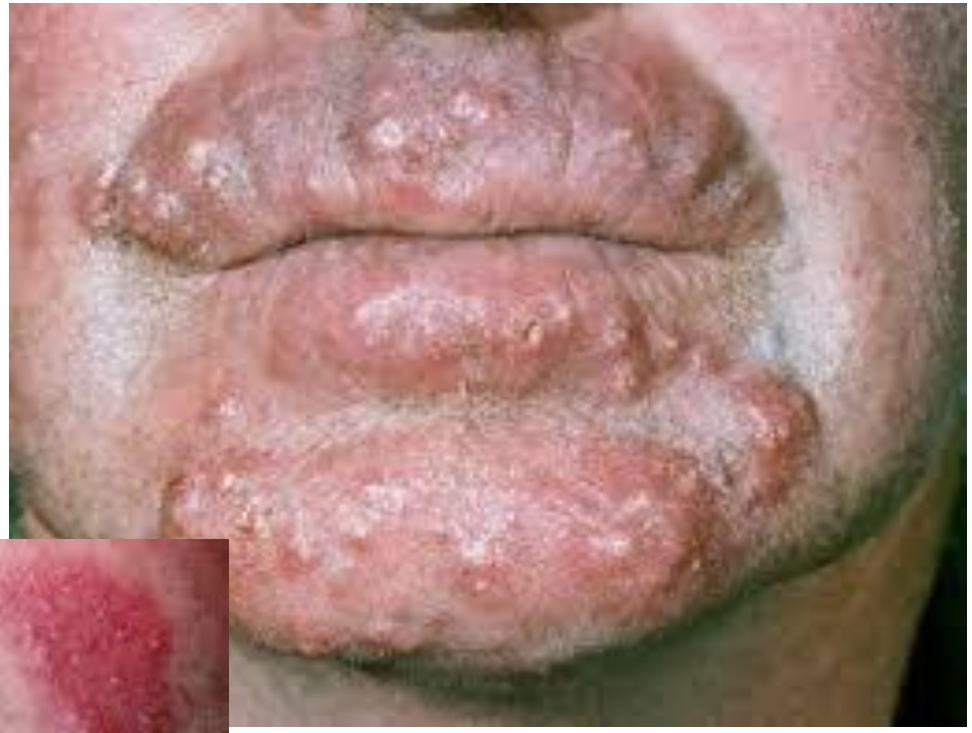
- Topical permethrin (5% cream, 1% liquid or lotion), from jawline to toes, between toes/fingers, under nails; leave on 8-12 hours
  - Infants, elderly and immunosuppressed – treat the face and scalp
  - May repeat in 7-10 days (itching may last for weeks)
- Alternatives: Lindane, topical sulfur, crotamiton
- Ivermectin 200 micrograms/kg PO dose once, repeat in 1 week
- Treat the household at the same time, launder clothes and bedding

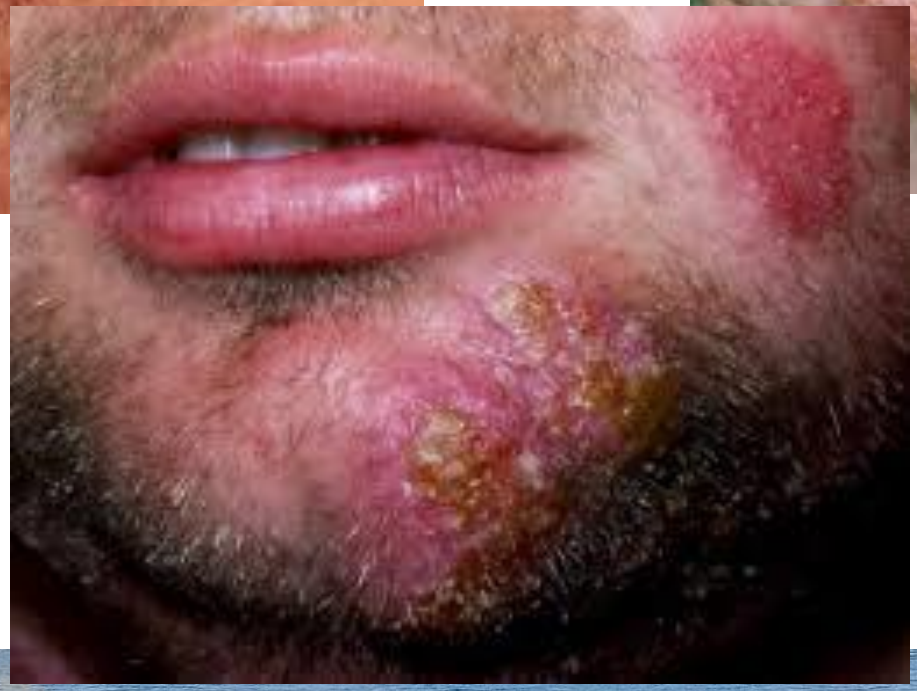


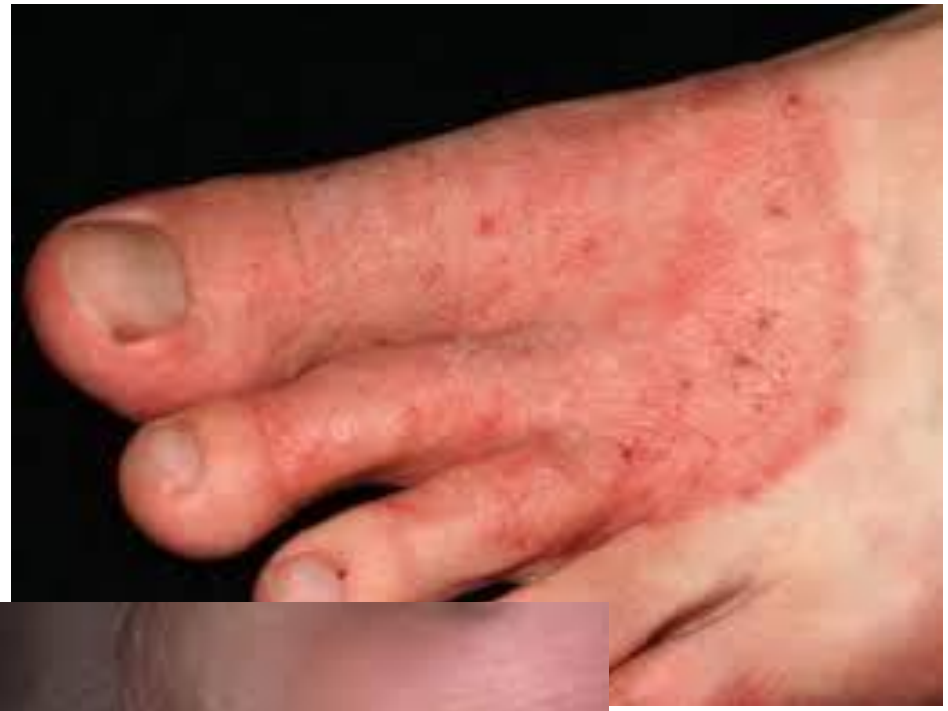


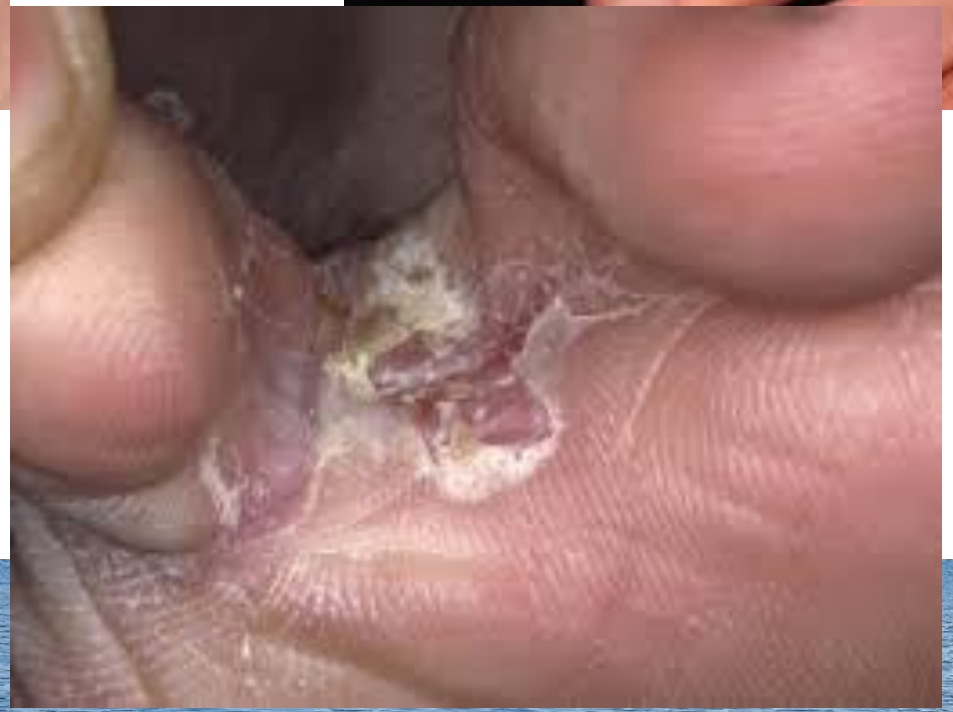


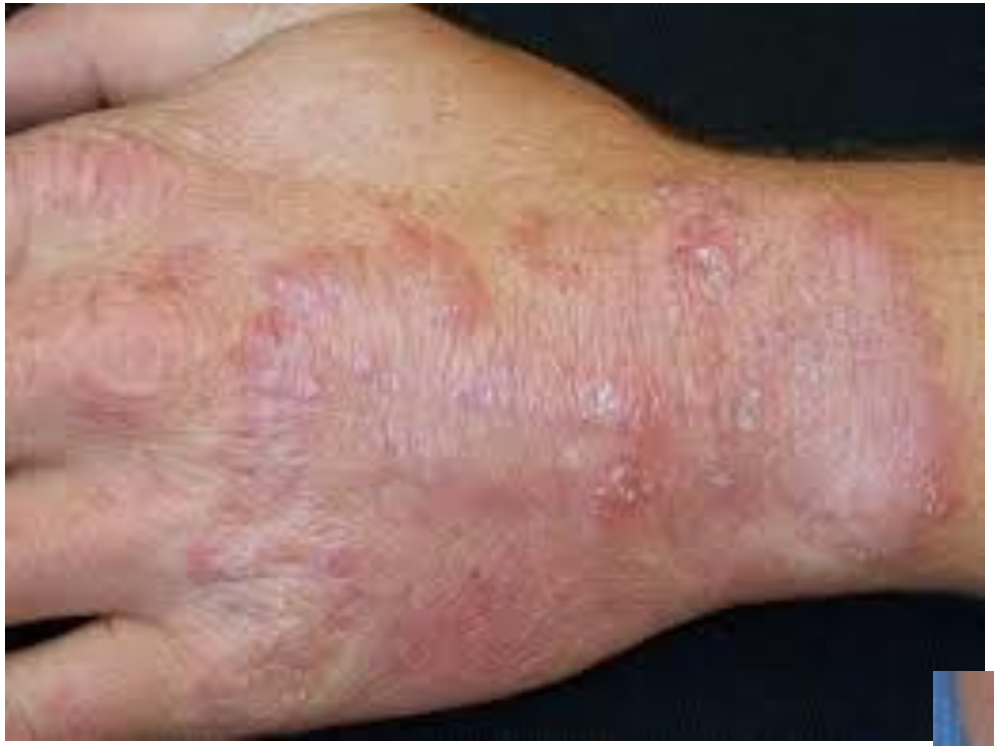


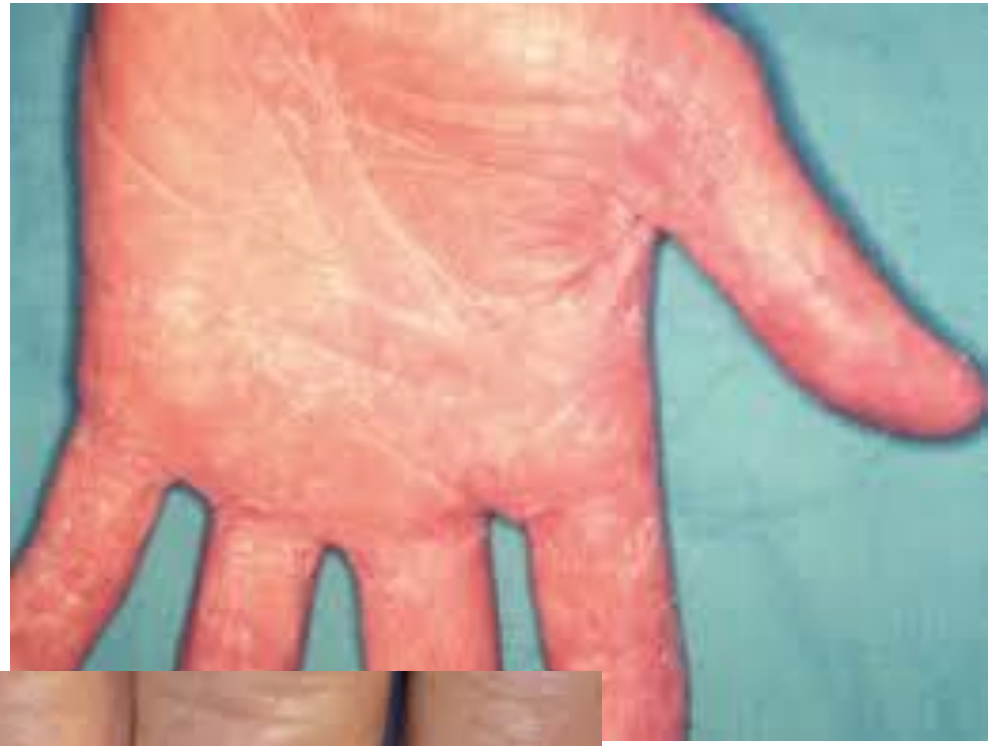


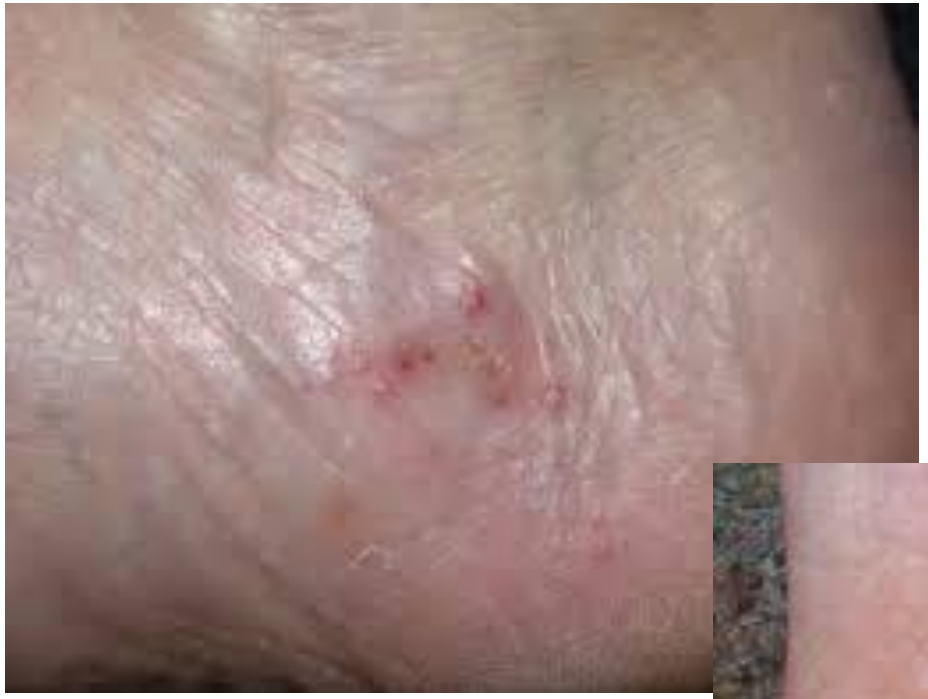


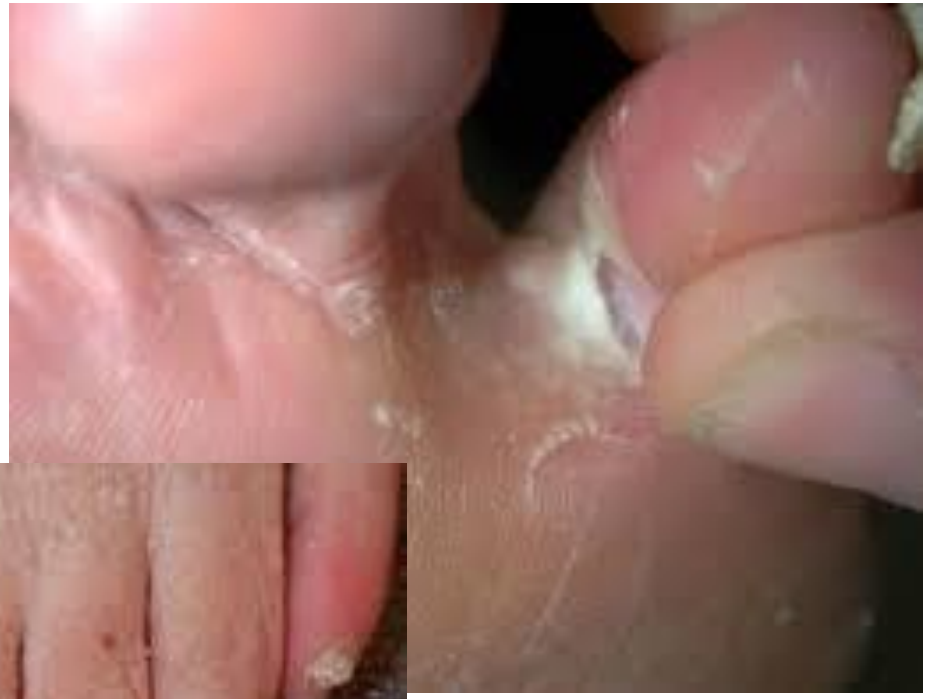


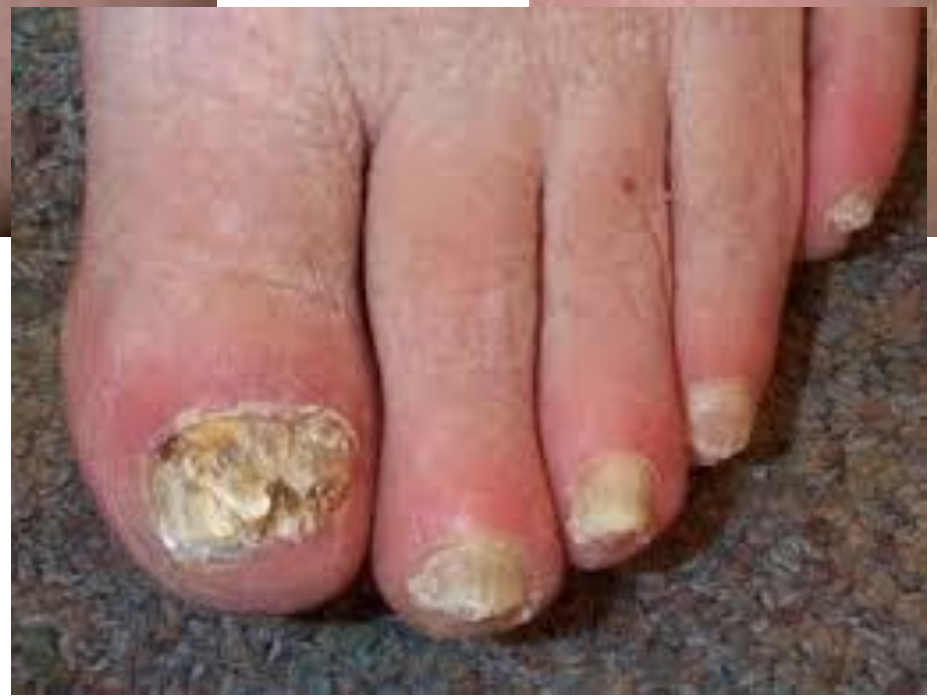












Diagnosis

What does it look like?

Diagnosis

What does it look like?

Scaly pink-red, border is often prominent, +/- nail changes

Diagnosis?

Diagnosis

What does it look like?

Scaly pink-red, border is often prominent, +/- nail changes

Diagnosis?

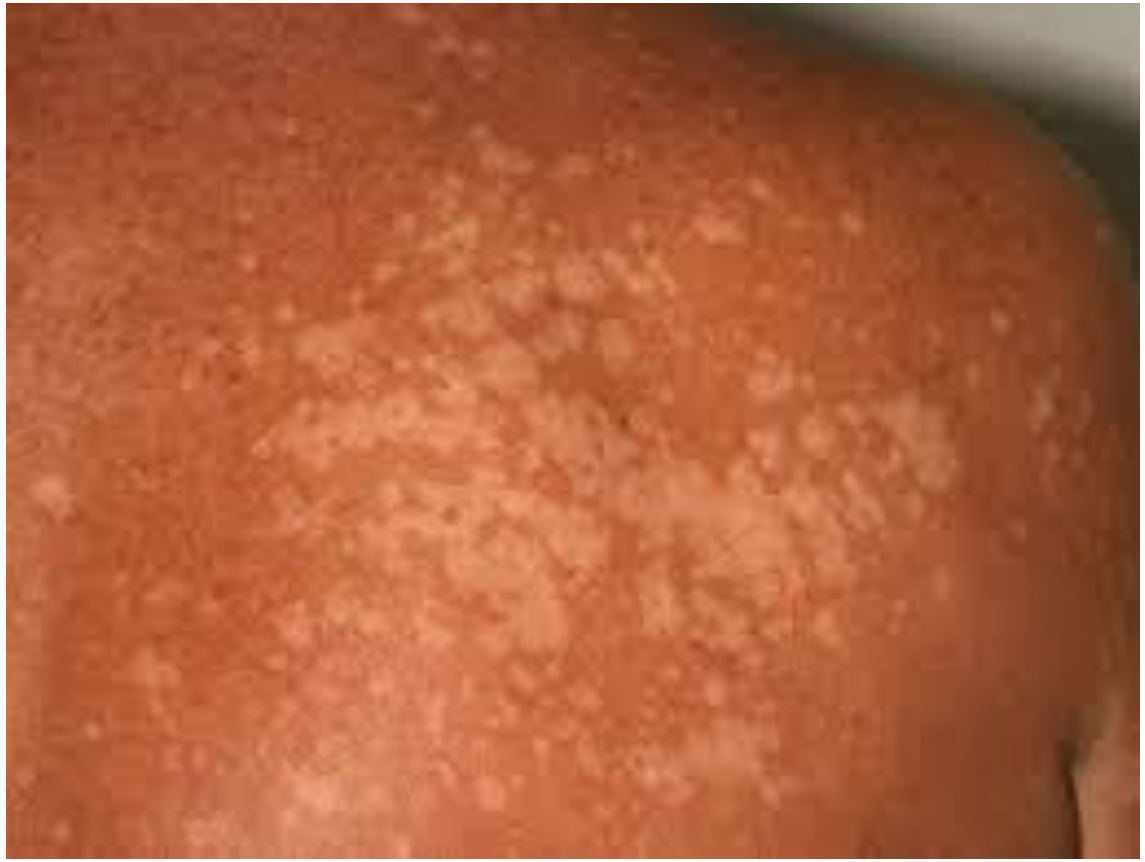
Tinea (corporis, manum, cruris, pedis, barbei, etc)

Treatment – Tinea cruris, corporis, manum, pedis

- Topical imidazoles - clotrimazole, miconazole, econazole, ketoconazole

  OTC (Oxiconazole)

- Terbinafine OTC (butenafine, naftifine)
- Cicloprox (Loprox®, Penlac®)
- Oral therapy – failure of topicals, extensive infection or hairy areas
  - Terbinafine (off-label)
  - Itracozole, ketoconazole, fluconazole (off-label)



Diagnosis

What does it look like?

Diagnosis

What does it look like?

Pale/whitish, scaly, dry

Diagnosis?

Diagnosis

What does it look like?

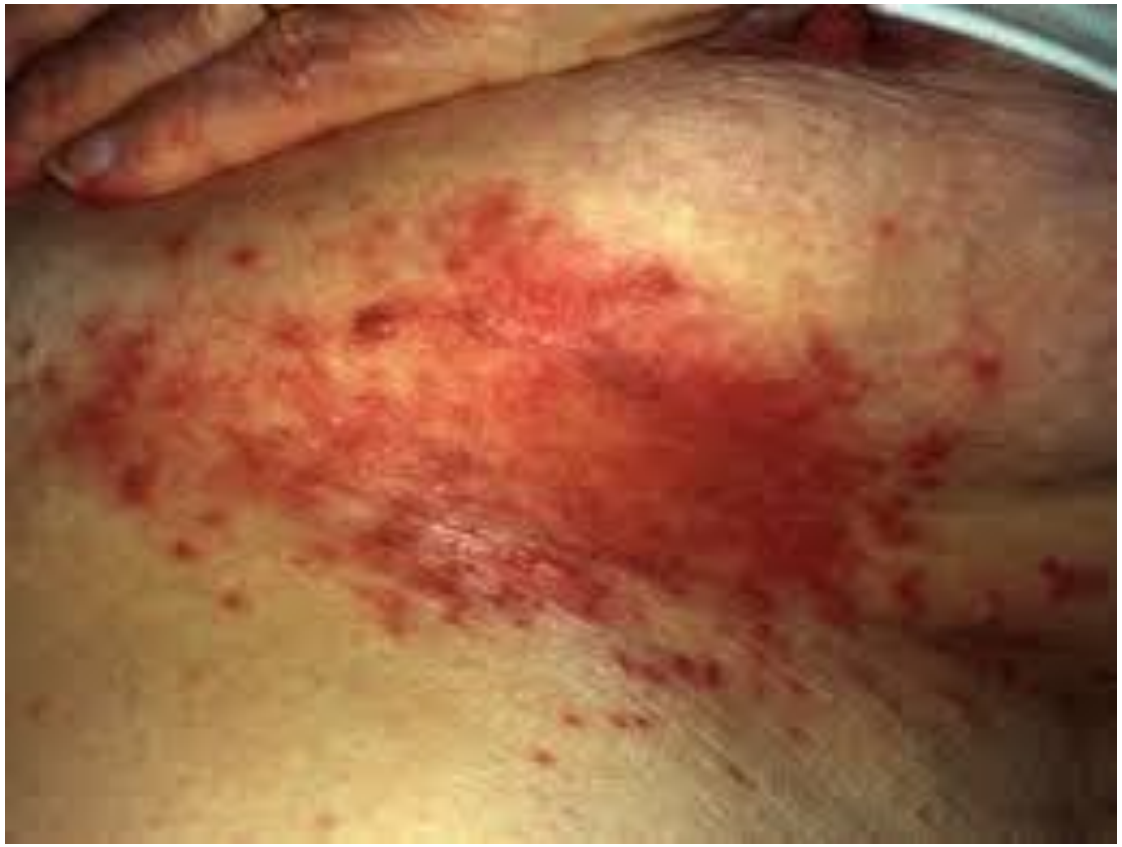
Pale/whitish, scaly, dry

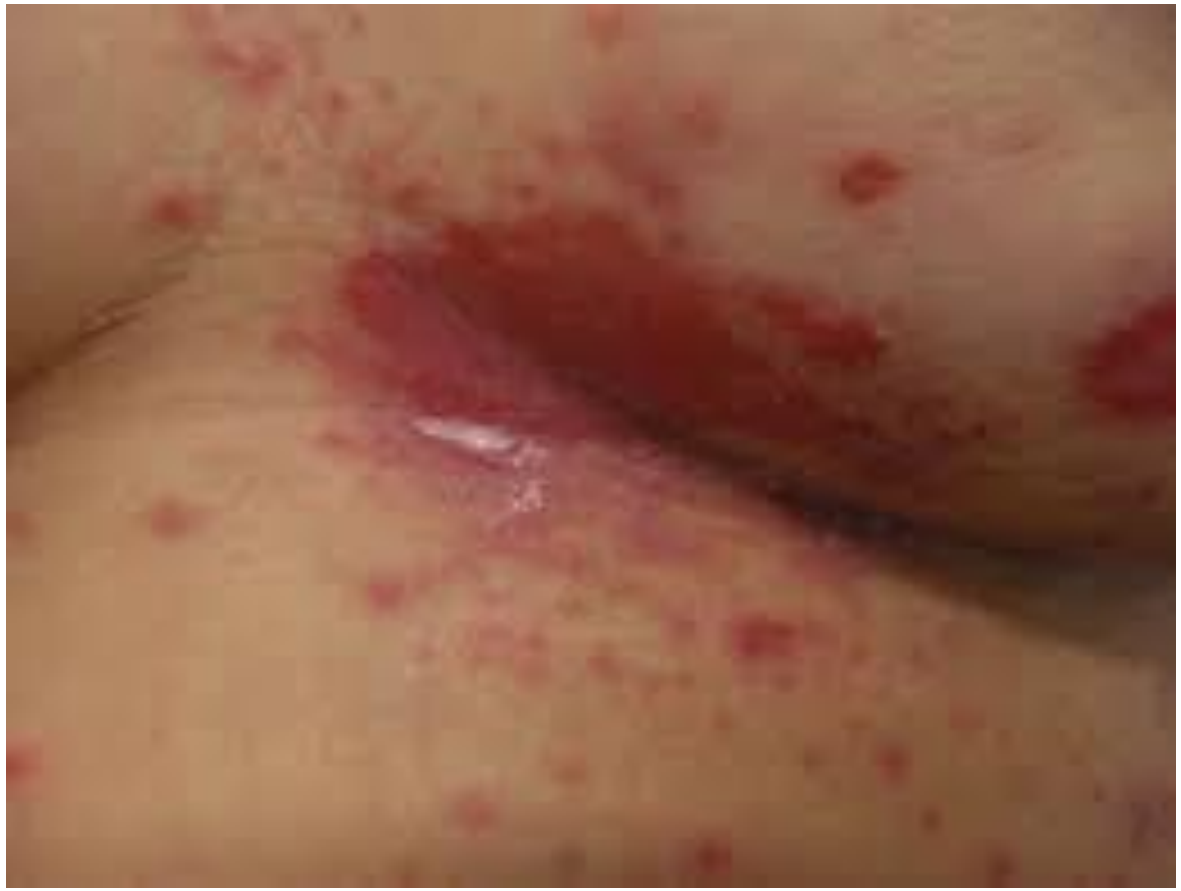
Diagnosis?

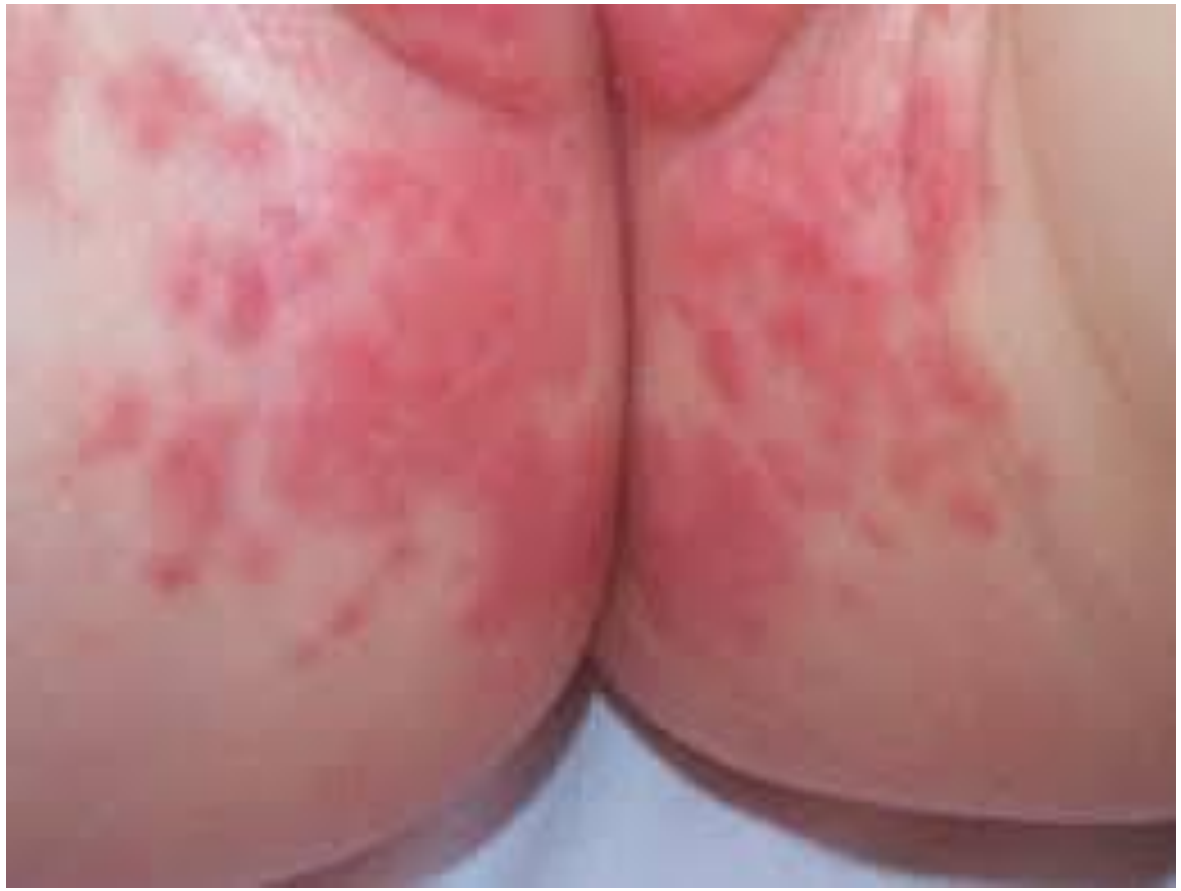
Tinea (or pityriasis) versicolor

Treatment – Tinea versicolor

- First-line: Selenium sulfide shampoos and other products
- All of the dermatophyte therapies







Diagnosis

What does it look like?

Diagnosis

What does it look like?

Moist, red/inflamed, clear border, “satellite” lesions

Diagnosis?

Diagnosis

What does it look like?

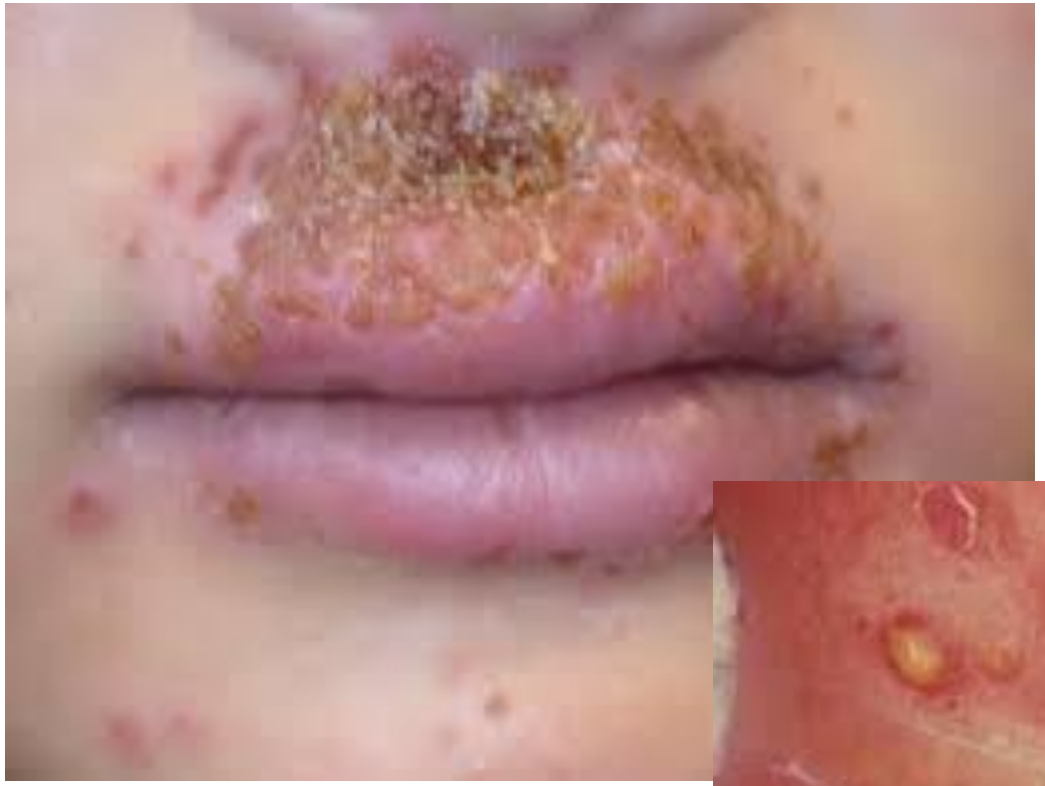
Moist, red/inflamed, clear border, “satellite” lesions

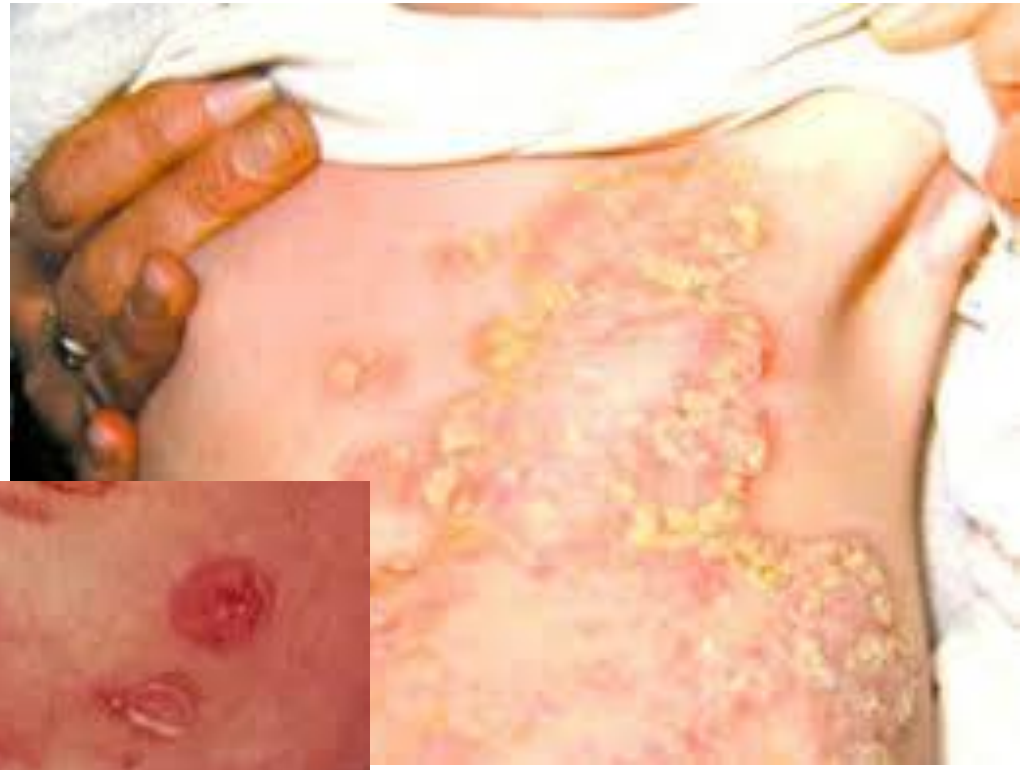
Diagnosis?

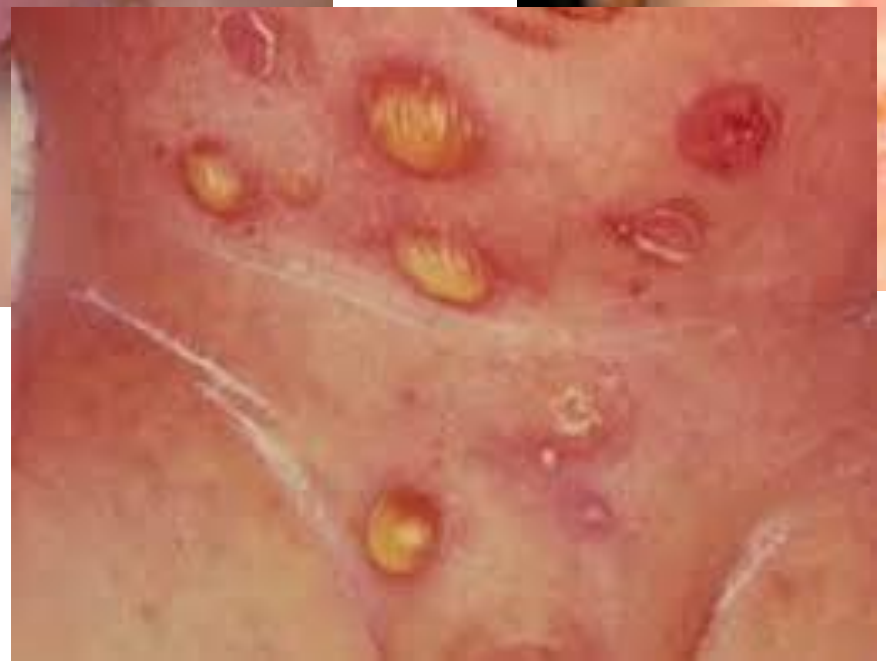
Candida dermatitis

Treatment – Candidiasis

- Any of the dermatophyte therapies
- Nystatin







Diagnosis

What does it look like?

Diagnosis

What does it look like?

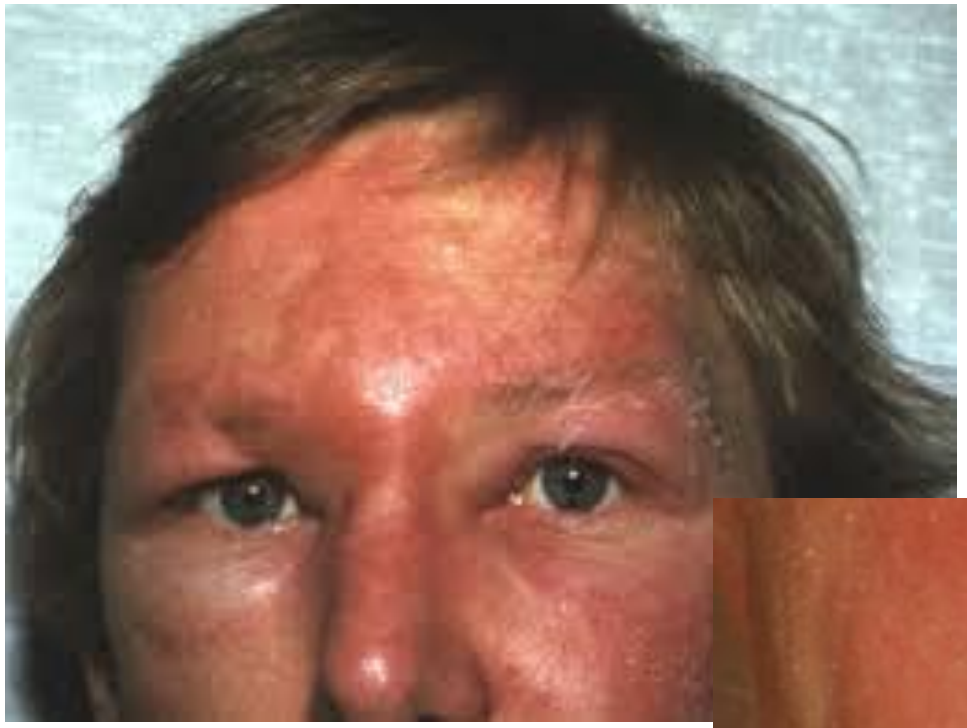
Honey-colored, moist → crusty

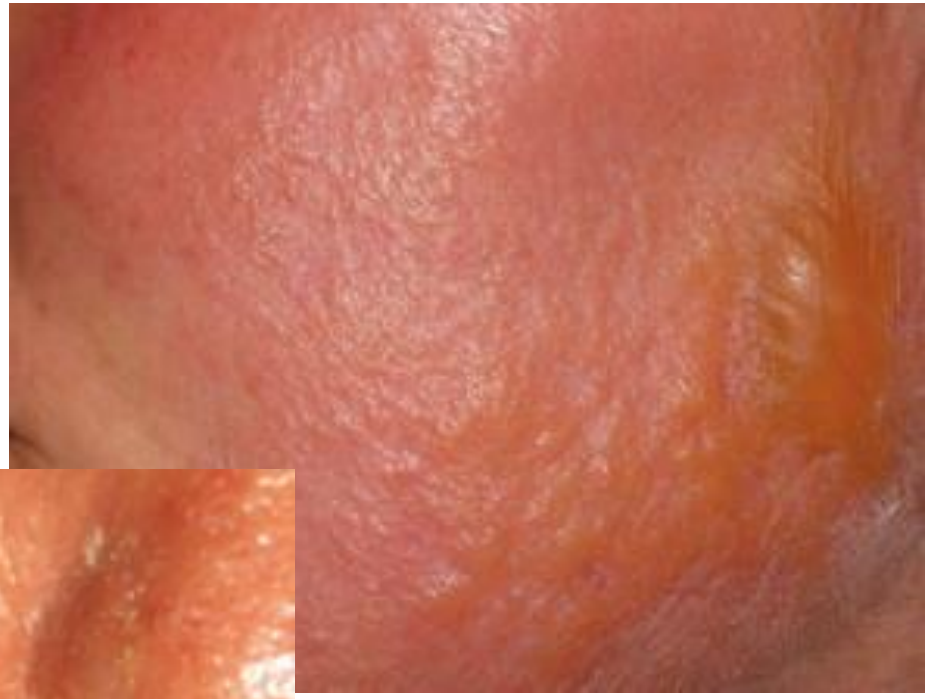
Diagnosis?

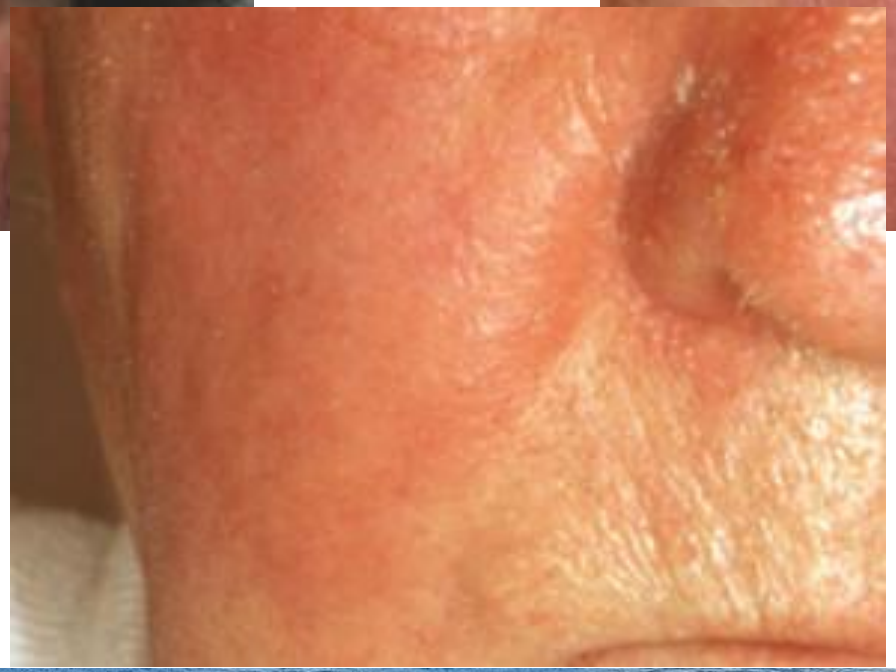
Impetigo

Treatment – Impetigo

- Topical mupirocin
- Oral therapy similar to cellulitis for extensive or bullous impetigo







Diagnosis

What does it look like?

Diagnosis

What does it look like?

Red/orange, edematous, usually facial

Diagnosis?

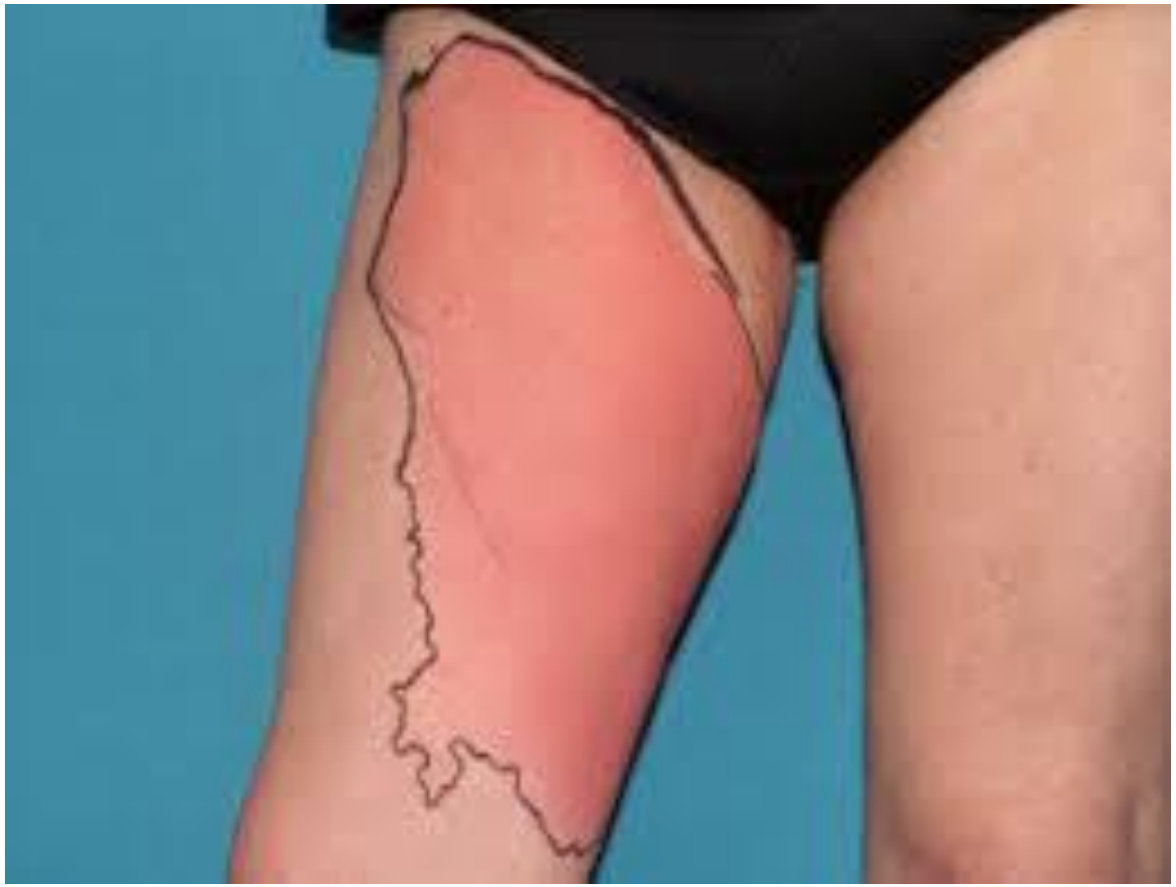
Diagnosis

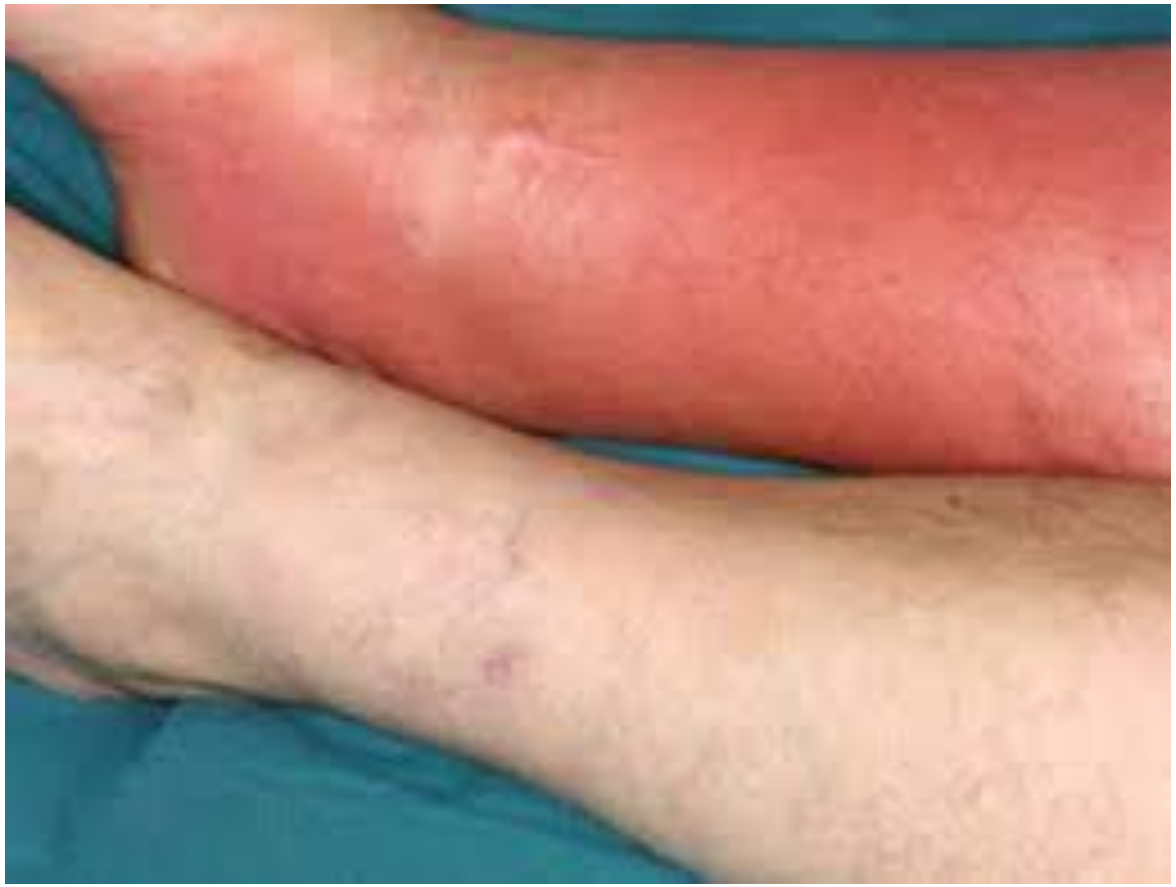
What does it look like?

Red/orange, edematous, usually facial

Diagnosis?

Erysipelas (mostly GABHS)

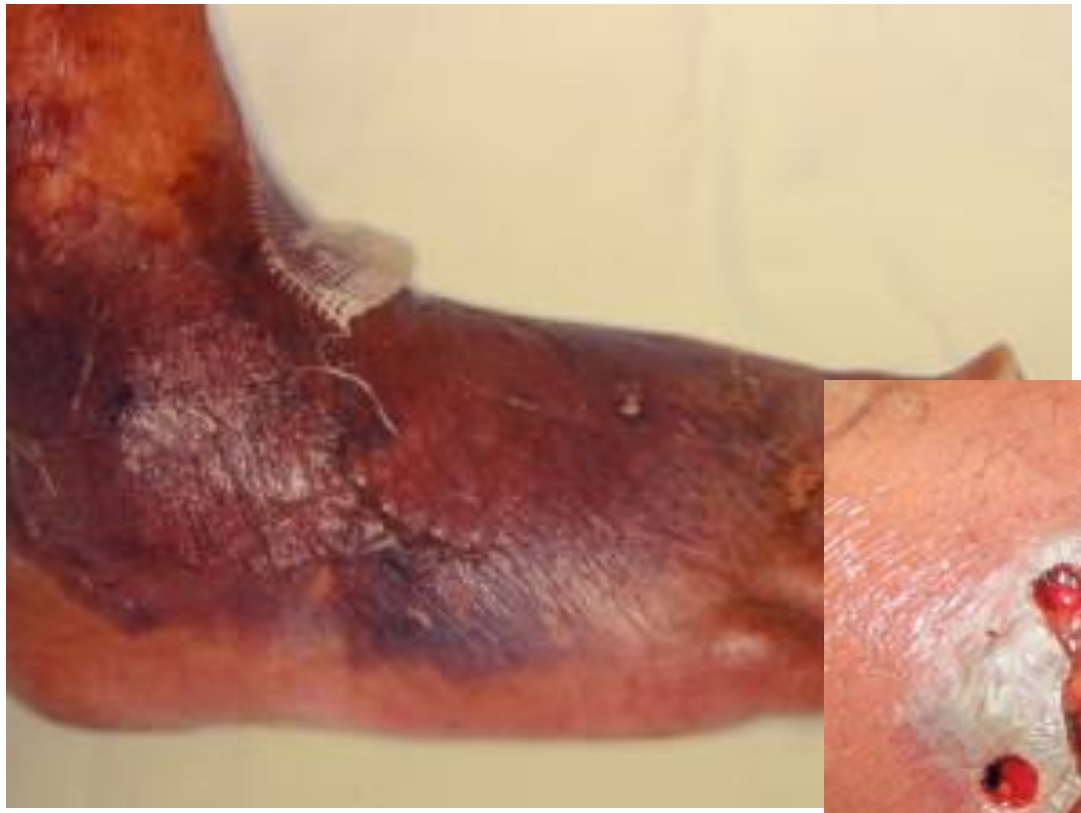


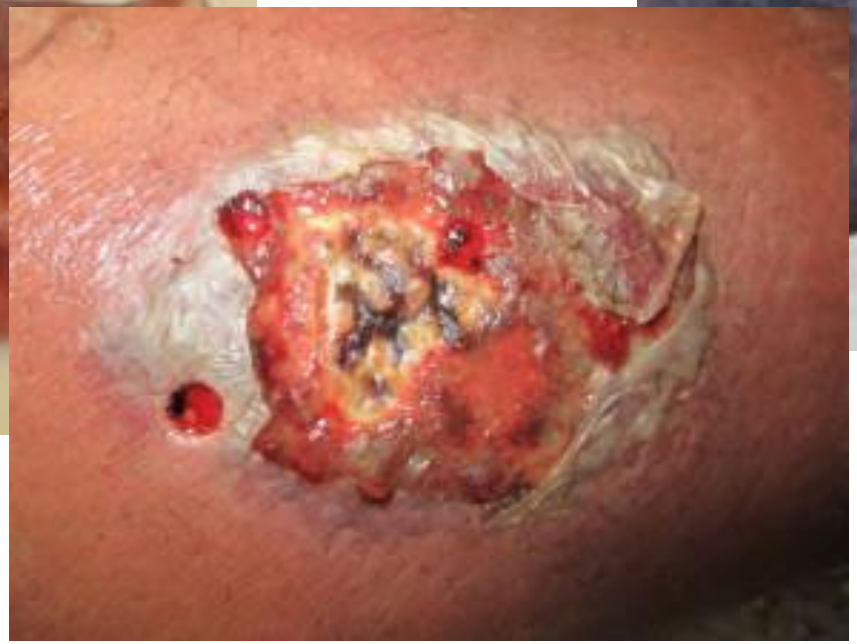


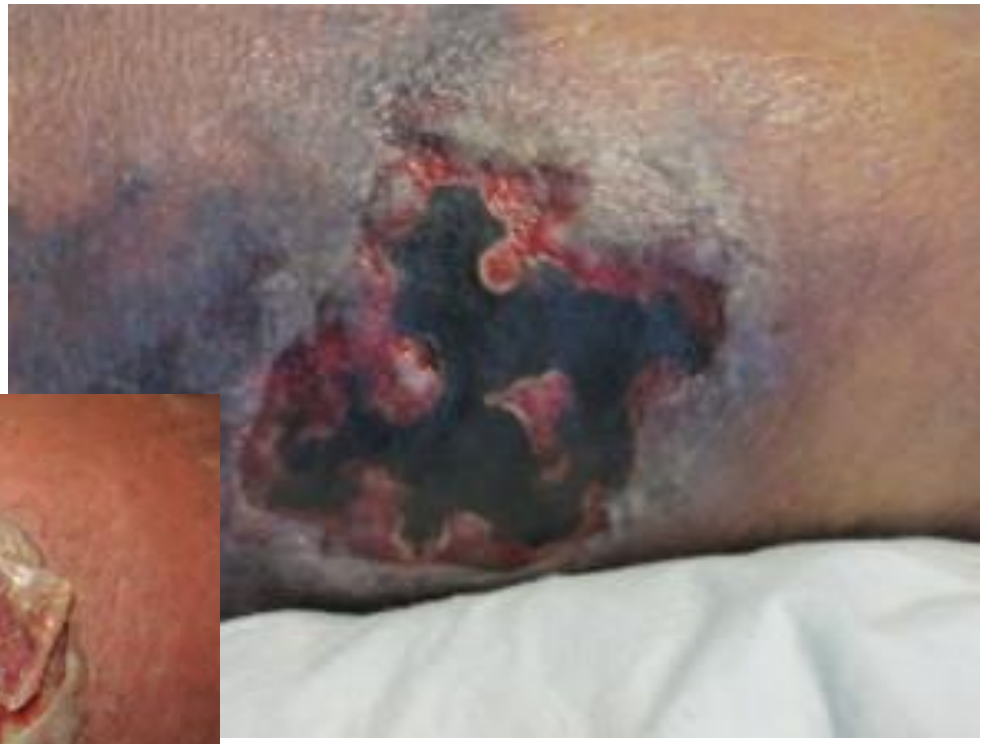
Cellulitis – Masqueraders and Variants

- Necrotizing fasciitis – “pain out of proportion” if no necrosis obvious
- Stasis dermatitis – bilateral/symmetric
- Shingles – dermatomal, vesicular/bullous
- Contact dermatitis – vesicular, topical exposure
- Panniculitis/EN – multifocal
- Vasculitis - petechial
- “Spider bite”, insect bites

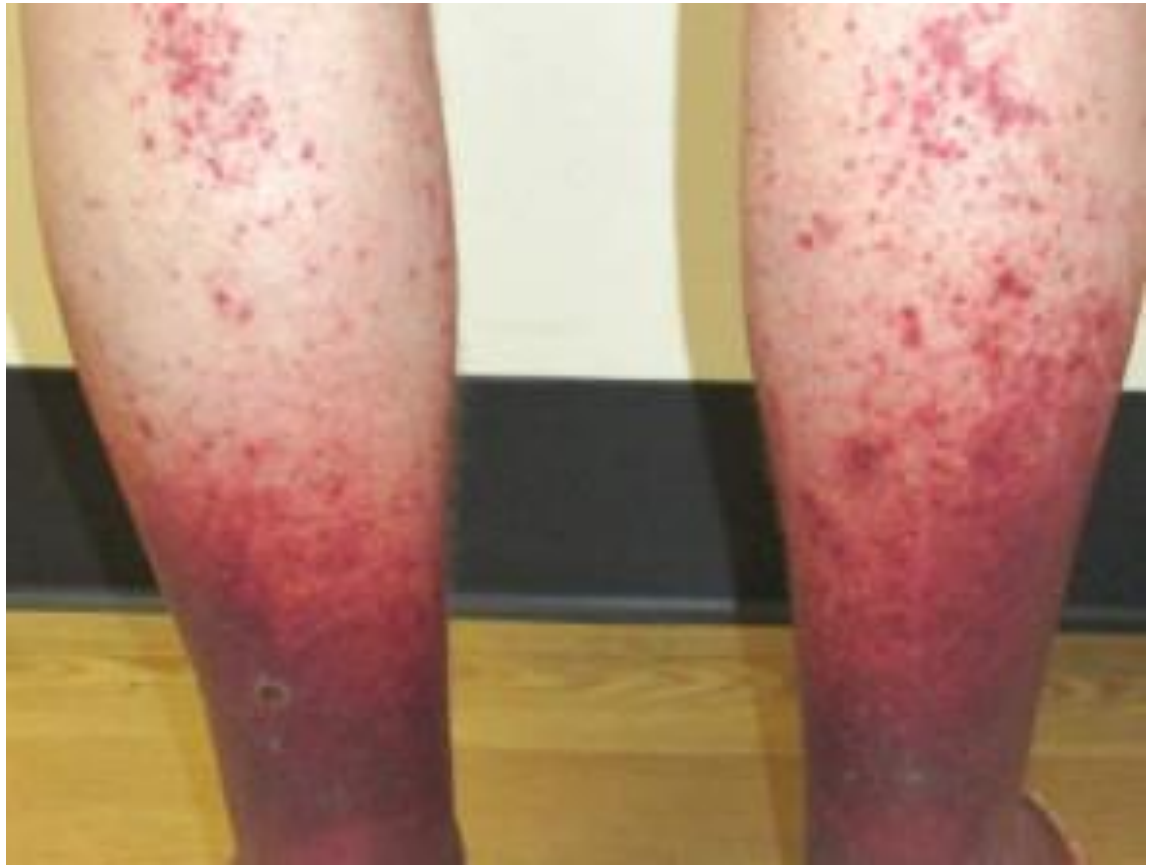
Cellulitis – Masqueraders and Variants

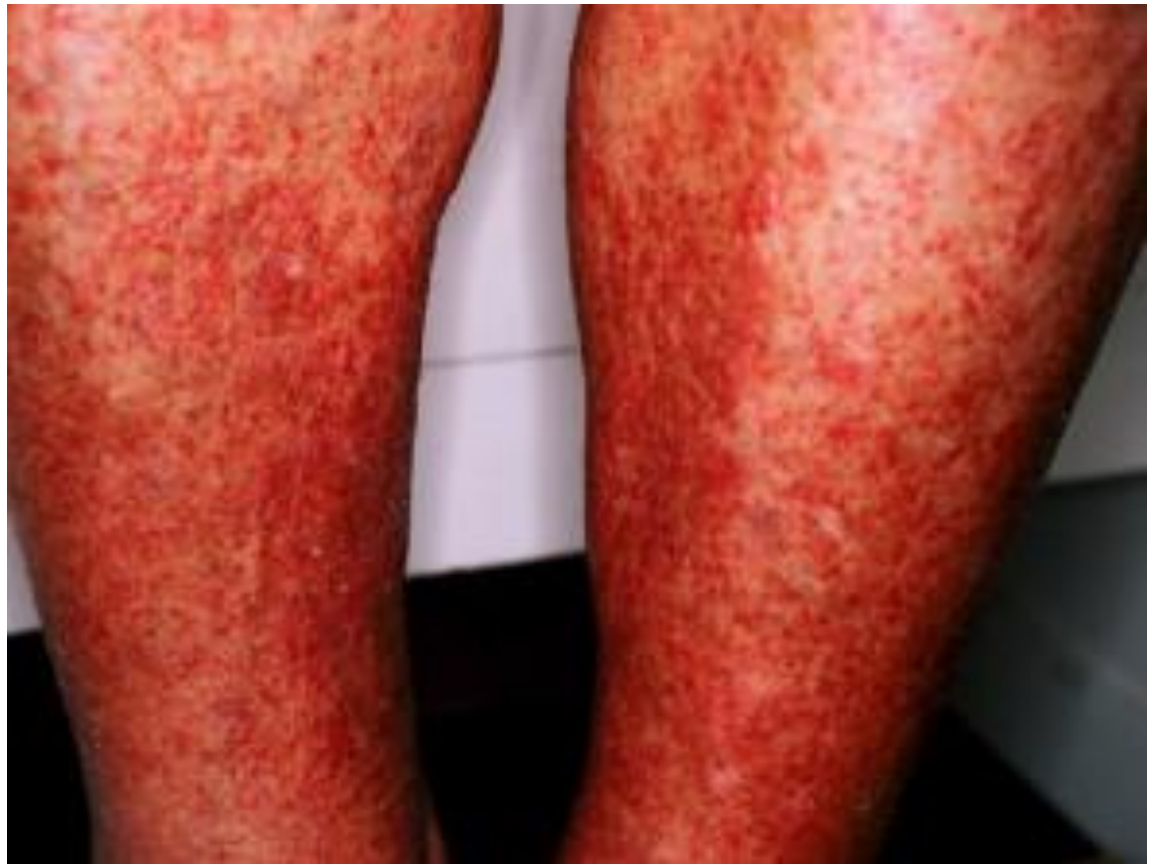




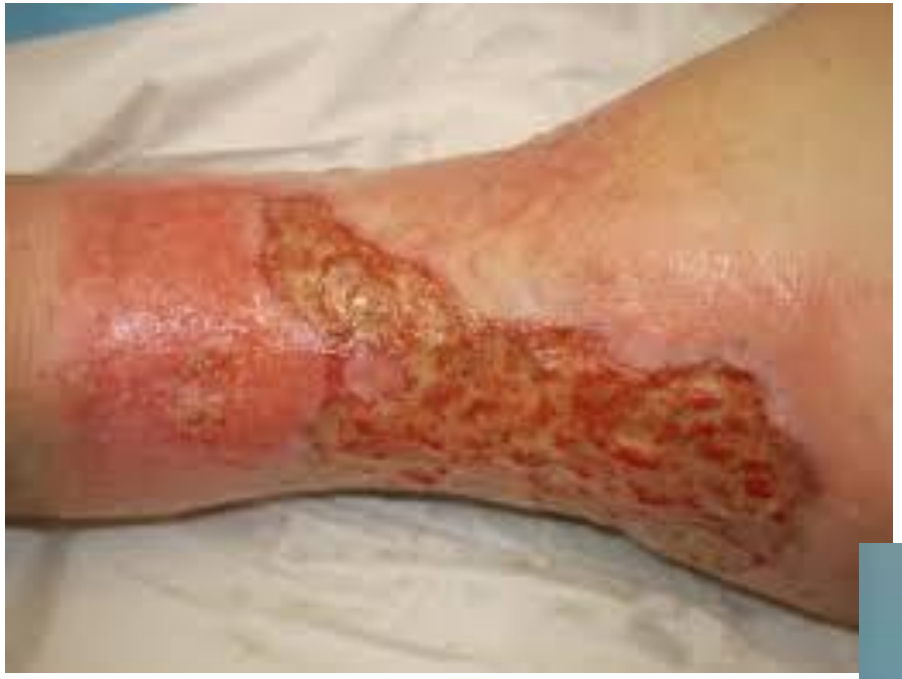


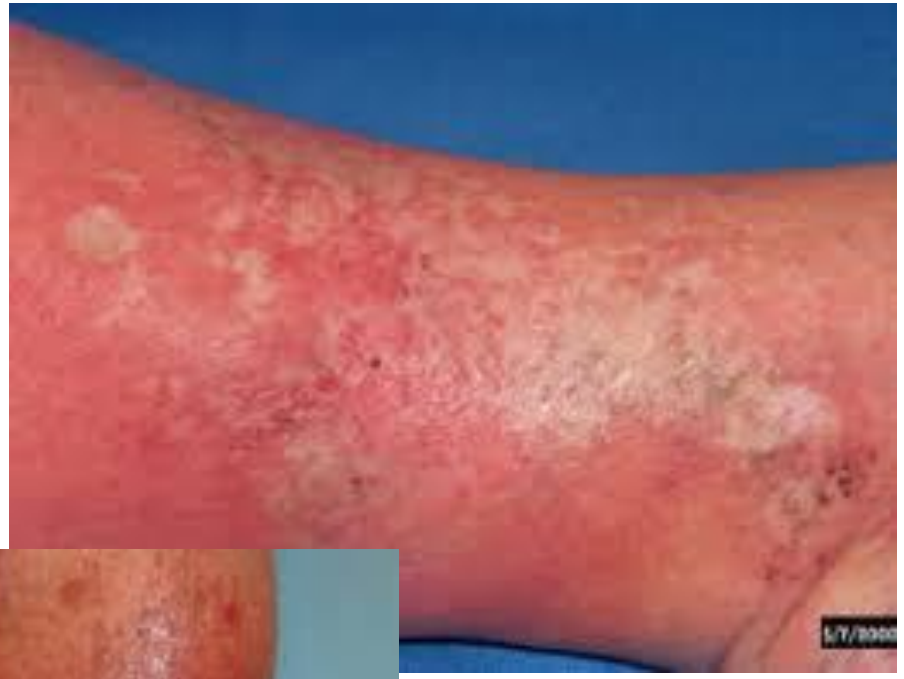
Cellulitis – Masqueraders and Variants

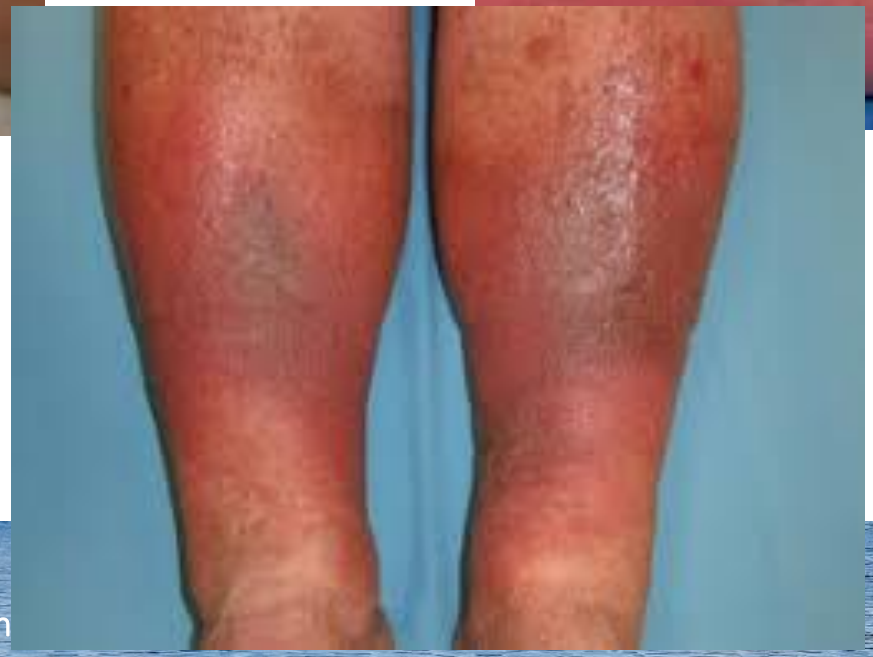




Cellulitis – Masqueraders and Variants





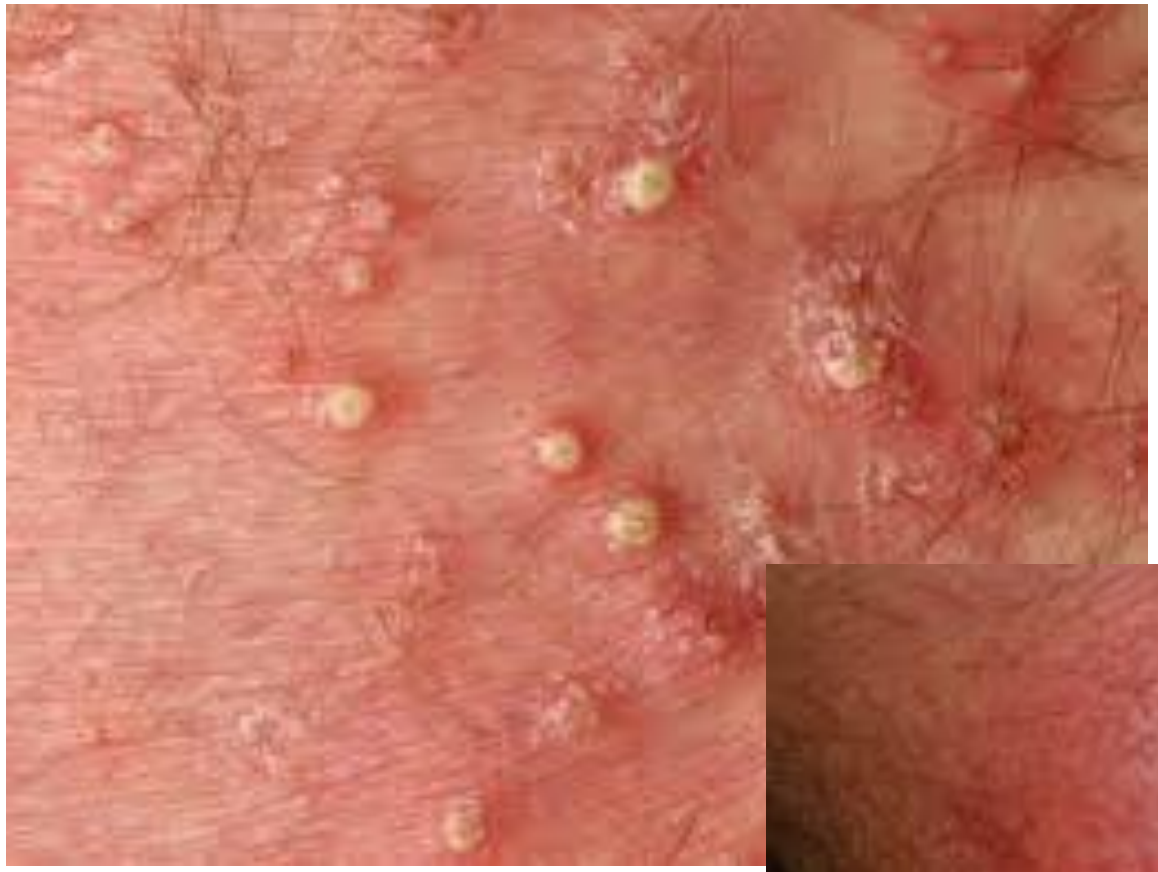


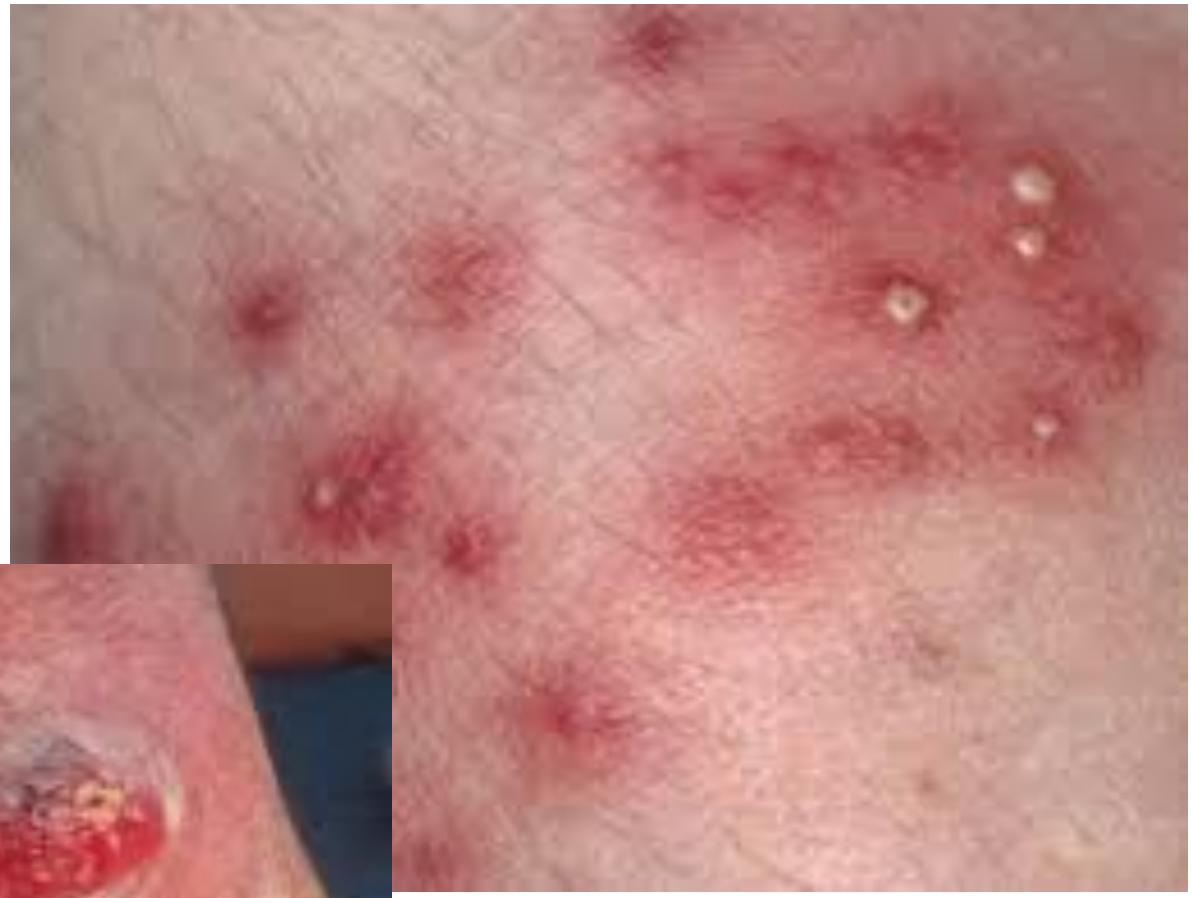
Cellulitis – 80-90% Over-diagnosis?

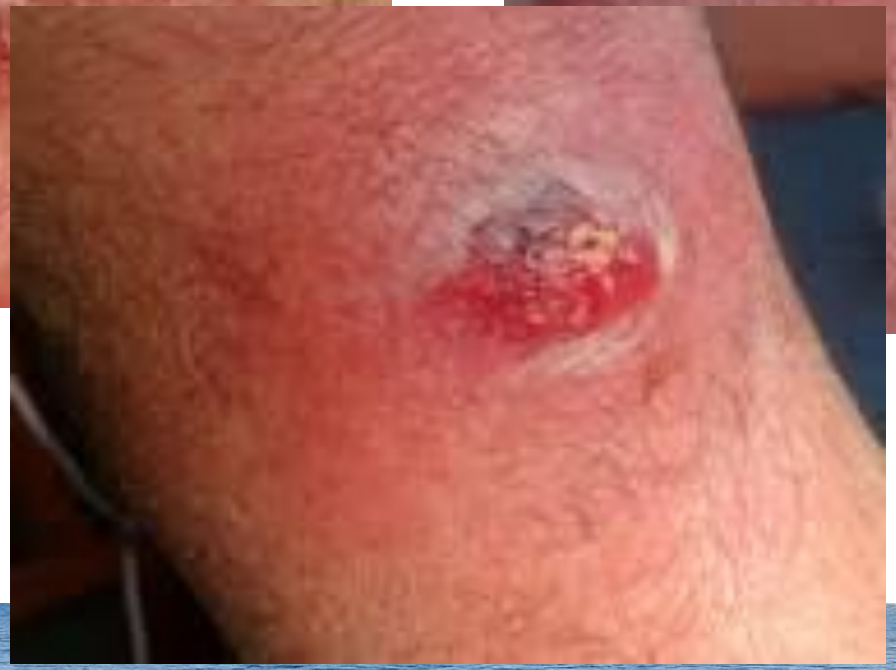
ALT-70 Prediction rule:

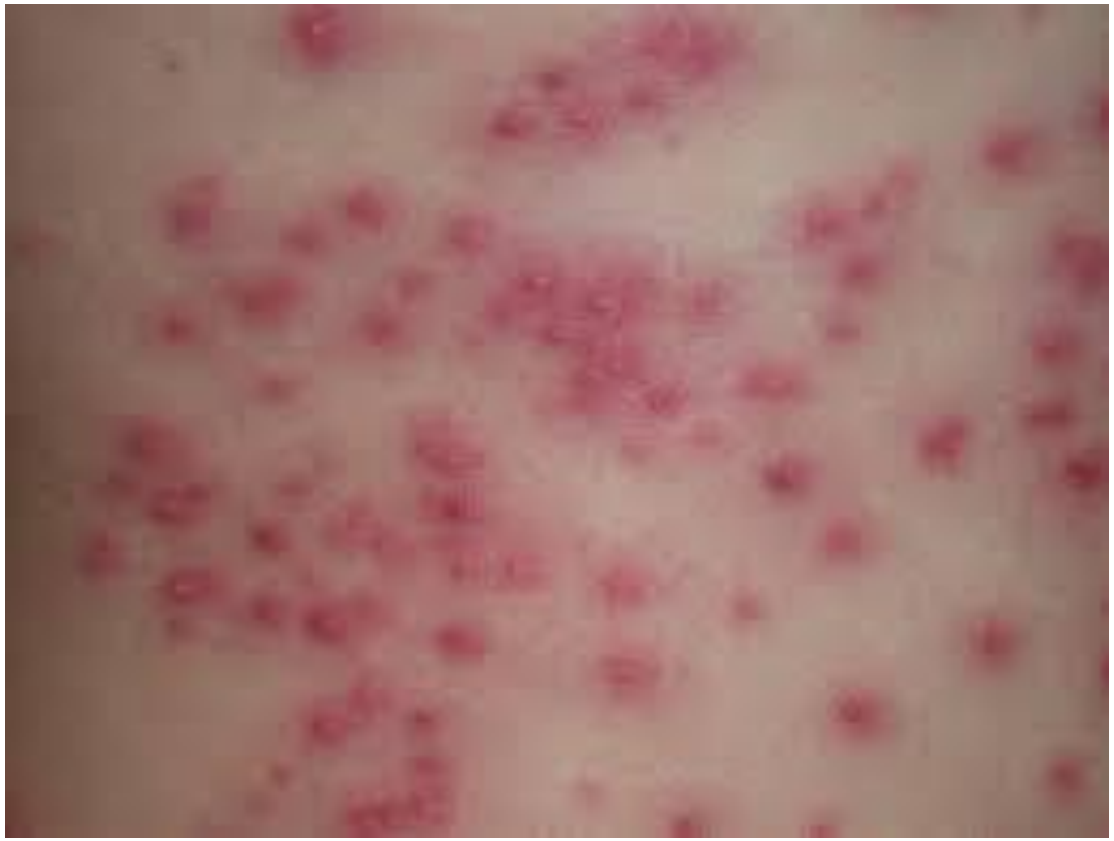
- Asymmetric – 3 pts
- Age ≥ 70 – 2 pts
- WBCs ≥ 10k – 1 pt
- HR ≥ 90 – 1 pt
- Score 0-2 ~82% pseudo-cellulitis
- Score 5 82% cellulitis

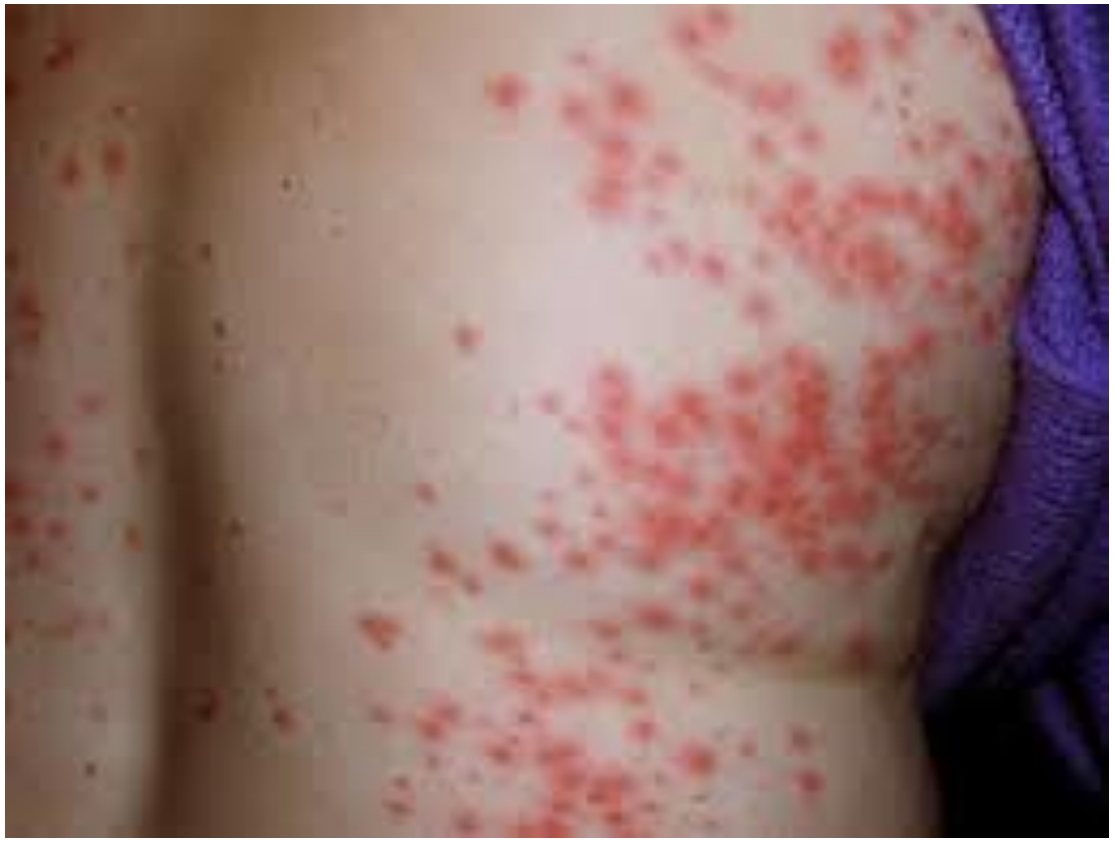
https://www.mdcalc.com/calc/3998/alt-70-score-cellulitis











Diagnosis

What does it look like?

Diagnosis

What does it look like?

Small pustules

Diagnosis?

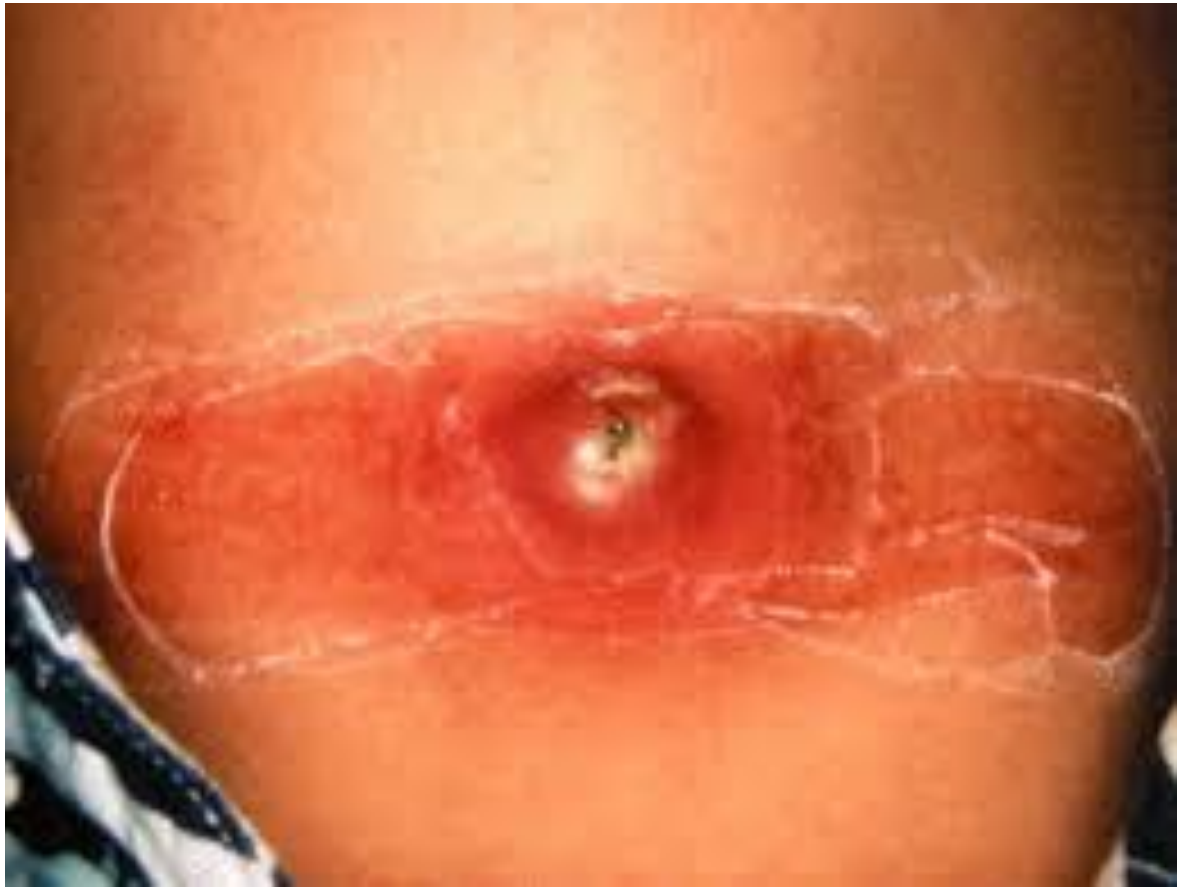
Diagnosis

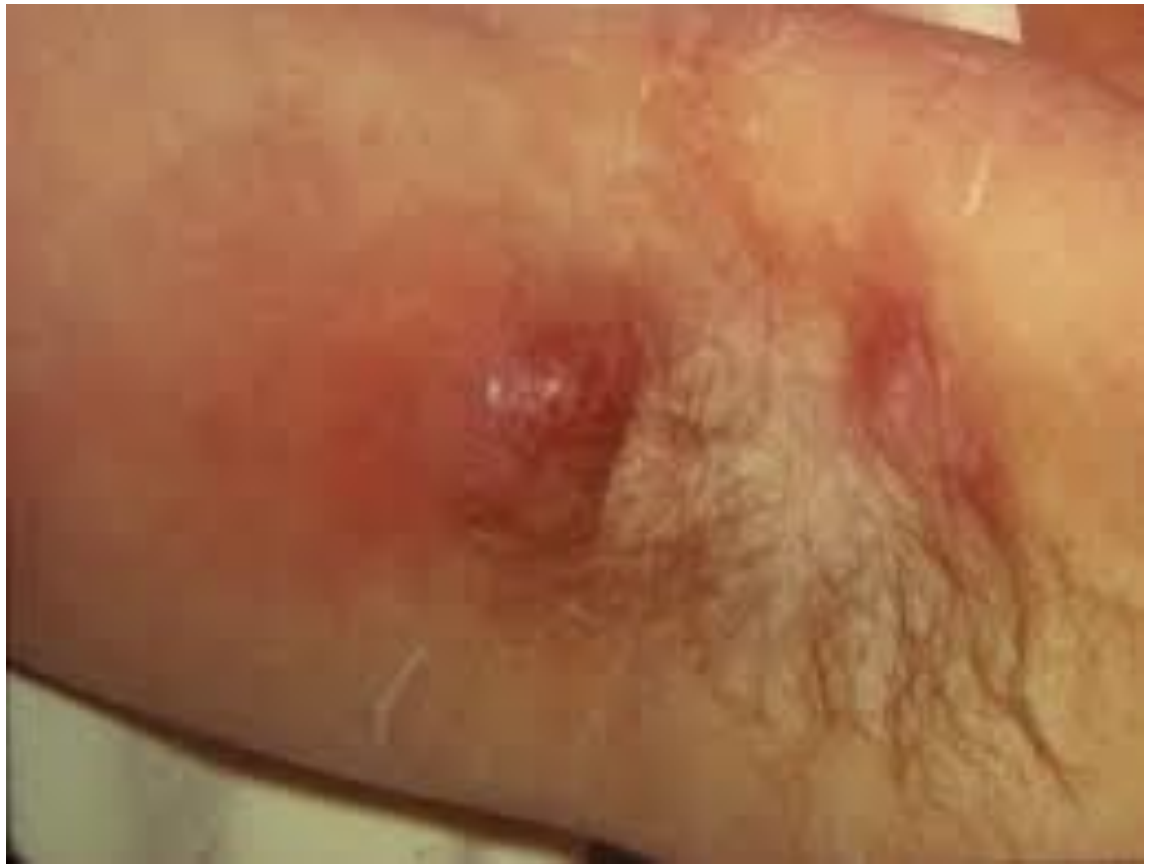
What does it look like?

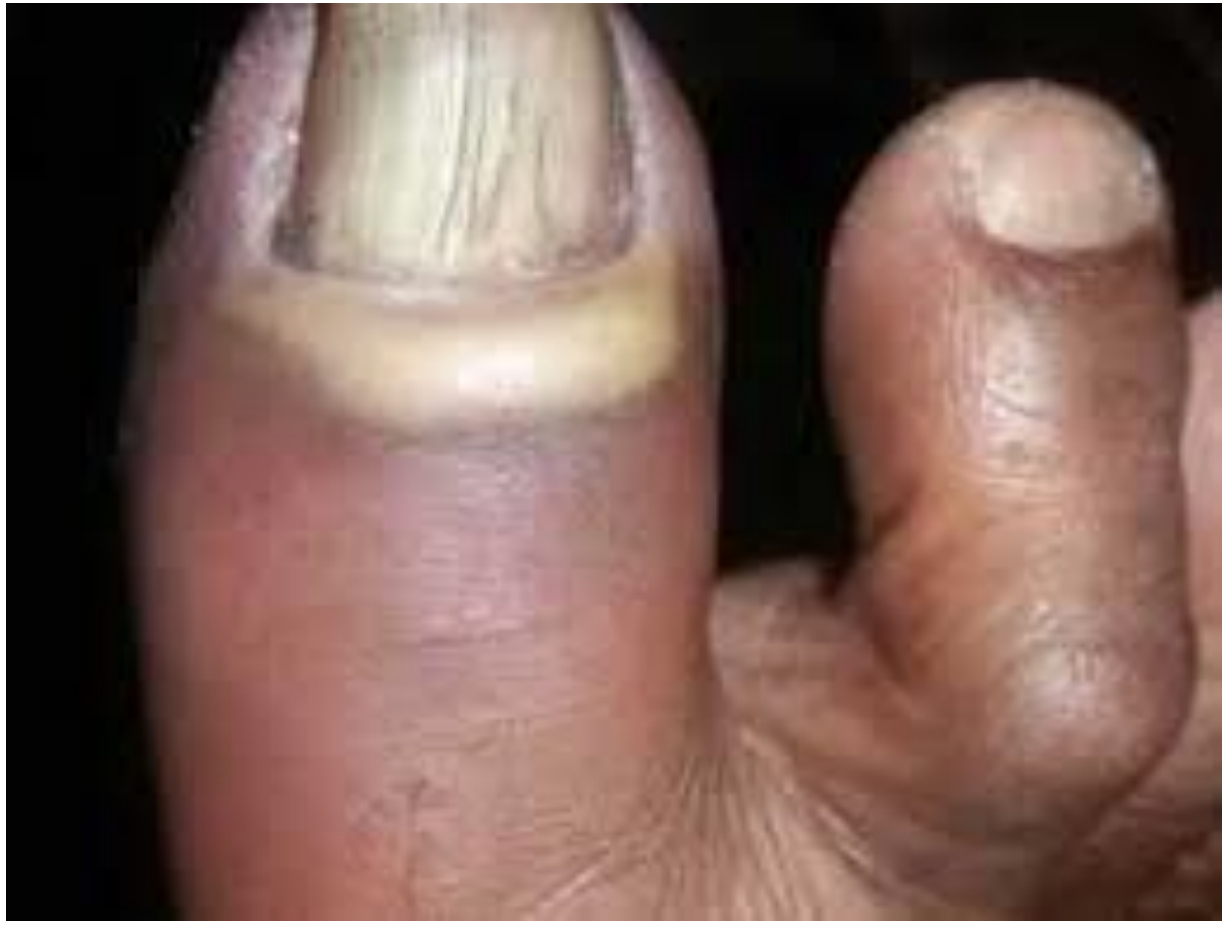
Small pustules

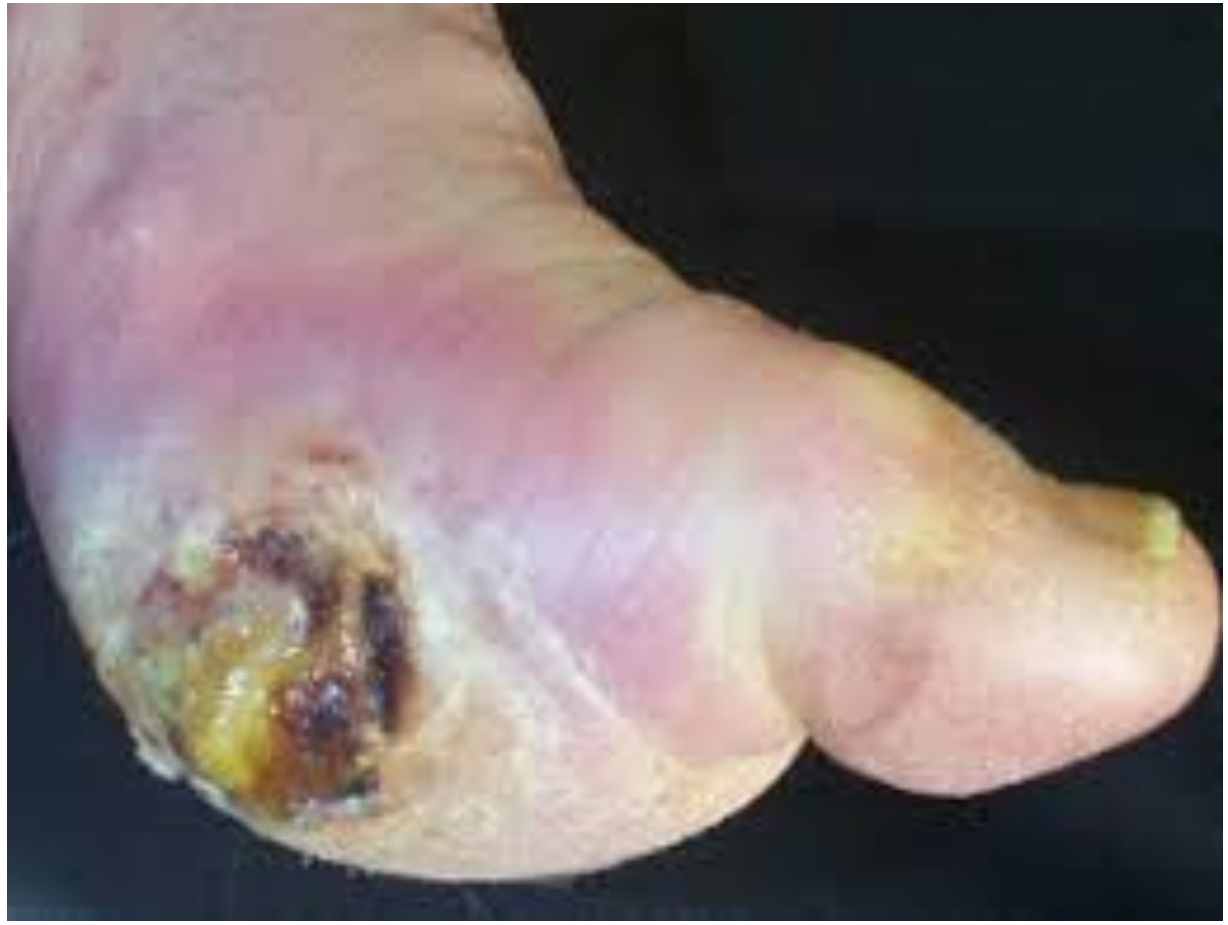
Diagnosis?

Folliculitis









Diagnosis

What does it look like?

Diagnosis

What does it look like?

Larger pus-containing areas in the skin

Diagnosis?

Diagnosis

What does it look like?

Larger pus-containing areas in the skin

Diagnosis?

Abscess

Skin and soft tissue infections - treatment

Non-purulent

- Mild – PO penicillin, cephalexin, dicloxacillin, clindamycin
- Moderate (systemic sxs) – IV penicillin, ceftriaxone, cefazolin, clindamycin

Purulent

- Mild – I&D
- Moderate I&D, C&S; empiric tx: TMP/SMX, Doxycycline

Derm "Danger Zone"

- Ill patient with any rash
- Excessively painful cellulitis/rash
- Petechiae below the nipple line
- Non-traumatic true purpura
- > limited desquamating rash
- + Nicholsky's sign
- Rash and severe stomatitis
- Diffuse erythroderma – TSS, anaphylaxis

Derm "Danger Zone"

- Ill patient with any rash
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- Non-traumatic true purpura
- > limited desquamating rash
- + Nicholsky's sign
- Rash and severe stomatitis
- Diffuse erythroderma – TSS, anaphylaxis

Referral/follow-up +/- labs

- Palmar/plantar rash
- Bullous rash
- Worsening rash despite treatment

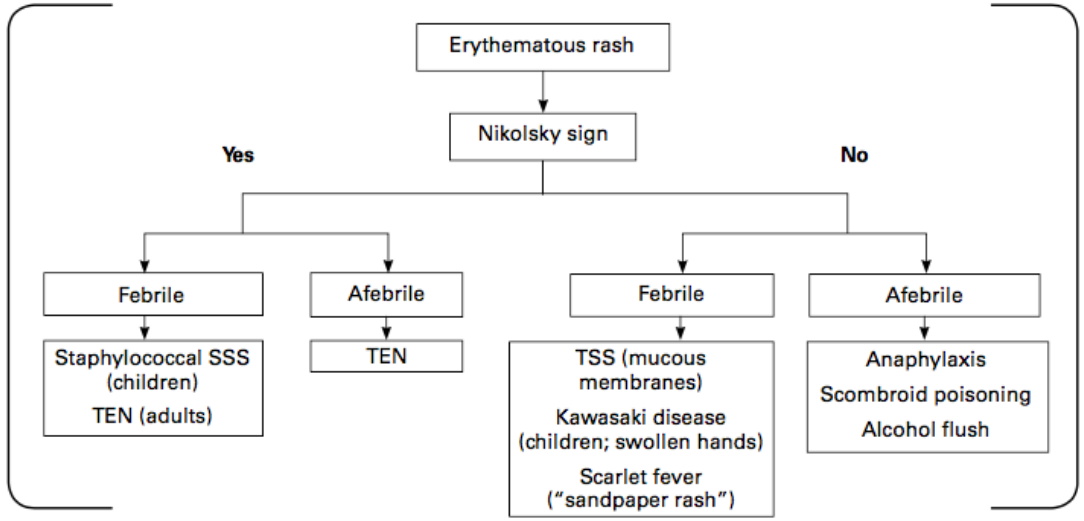
Pattern recognition

- Eczema/atopic dermatitis
- Psoriasis
- Seborrheic dermatitis
- Pityriasis rosea
- Poison oak, ivy, sumac
- Contact dermatitis
- Urticaria/angioedema
- Erythema multiforme
- Stevens Johnson Syndrome/TEN
- Erythema nodosum
- Fixed drug reaction
- Morbilliform drug reaction
- Viral exanthems
- Syphilis
- Molluscum contagiosum
- Shingles
- Herpes simplex
- Scabies
- Tinea manum/ pedis/cruris etc
- Candida
- Tinea versicolor
- Impetigo
- Erysipelas
- Cellulitis
- Stasis dermatitis
- Folliculitis
- Abscess

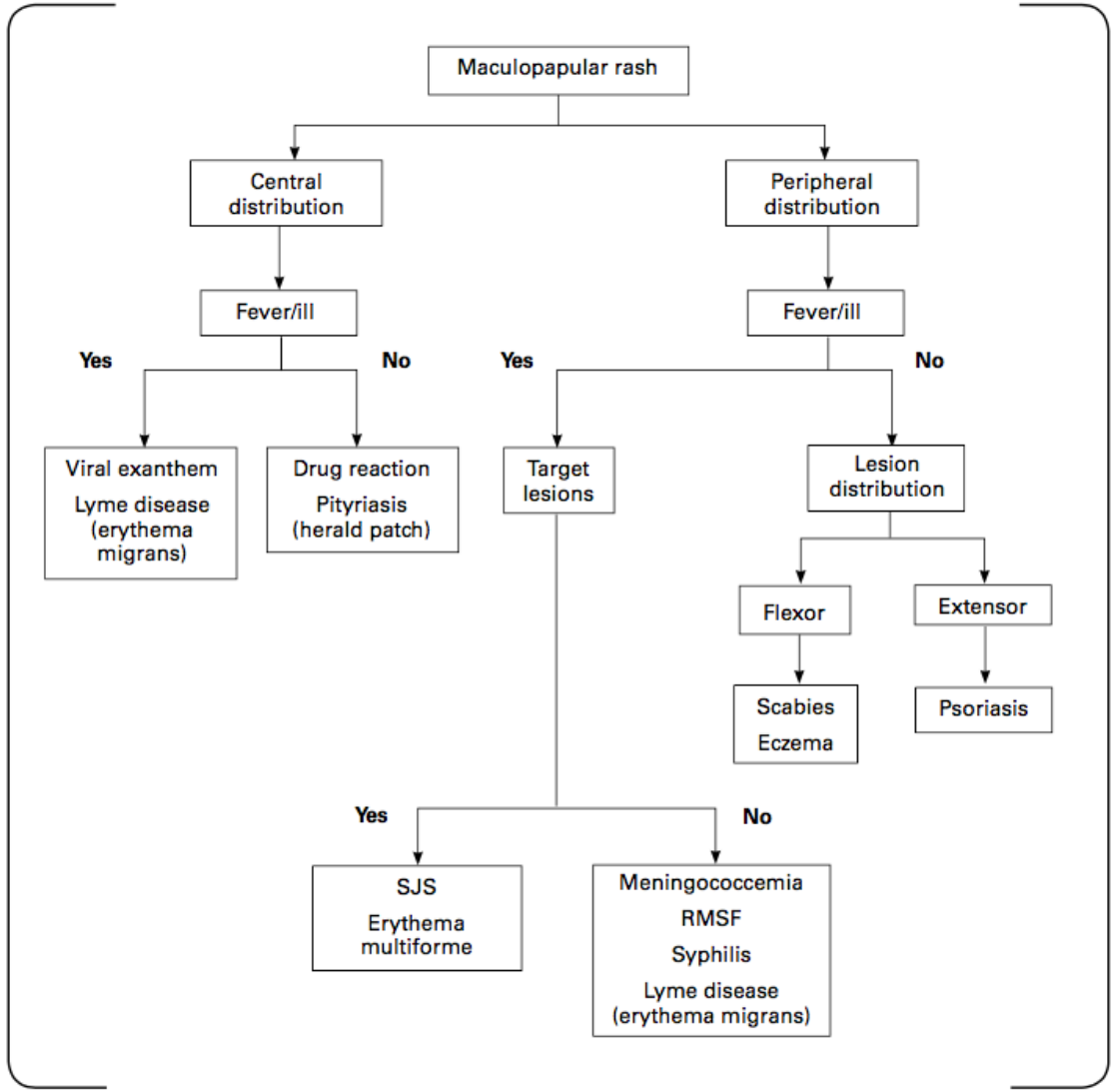
Approach to the "Unknown Rash"

- Usually because it's not common
- Know your map geography – travel history
- Ask more questions – new meds, food, sexual history
- Know your bodily geography – bodily rash patterns
- Algorithm

Approach to the "Unknown Rash"



SSS = scalded skin syndrome; TEN = toxic epidermal necrolysis; TSS = toxic shock syndrome.

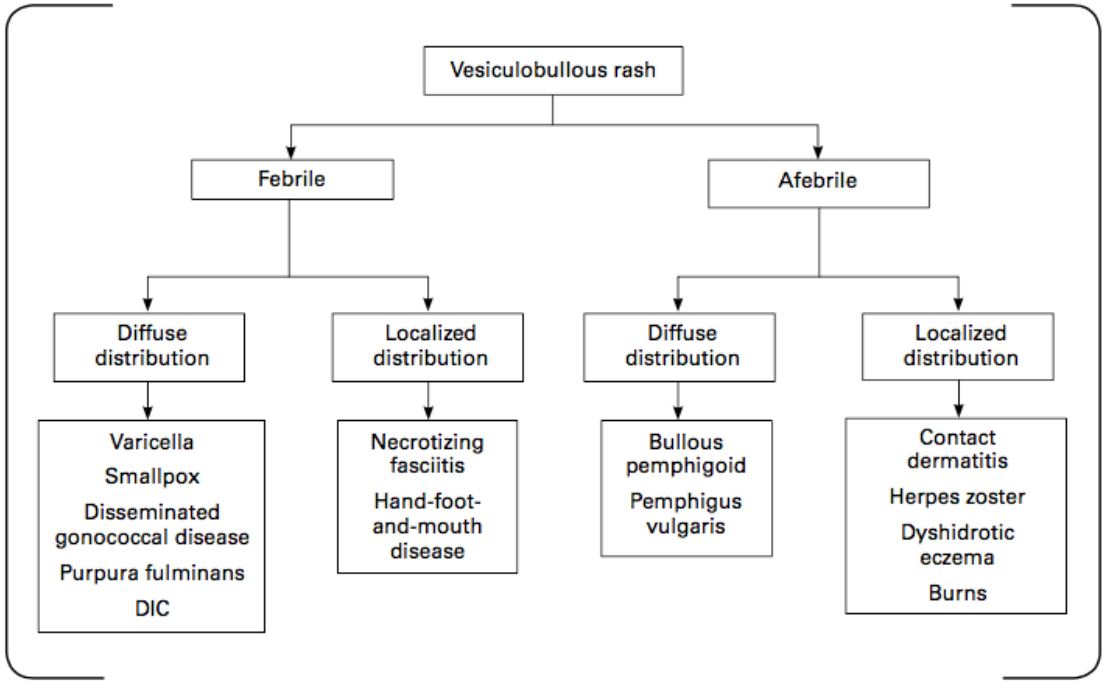


SJS = Stevens-Johnson syndrome; RMSF = Rocky Mountain spotted fever.

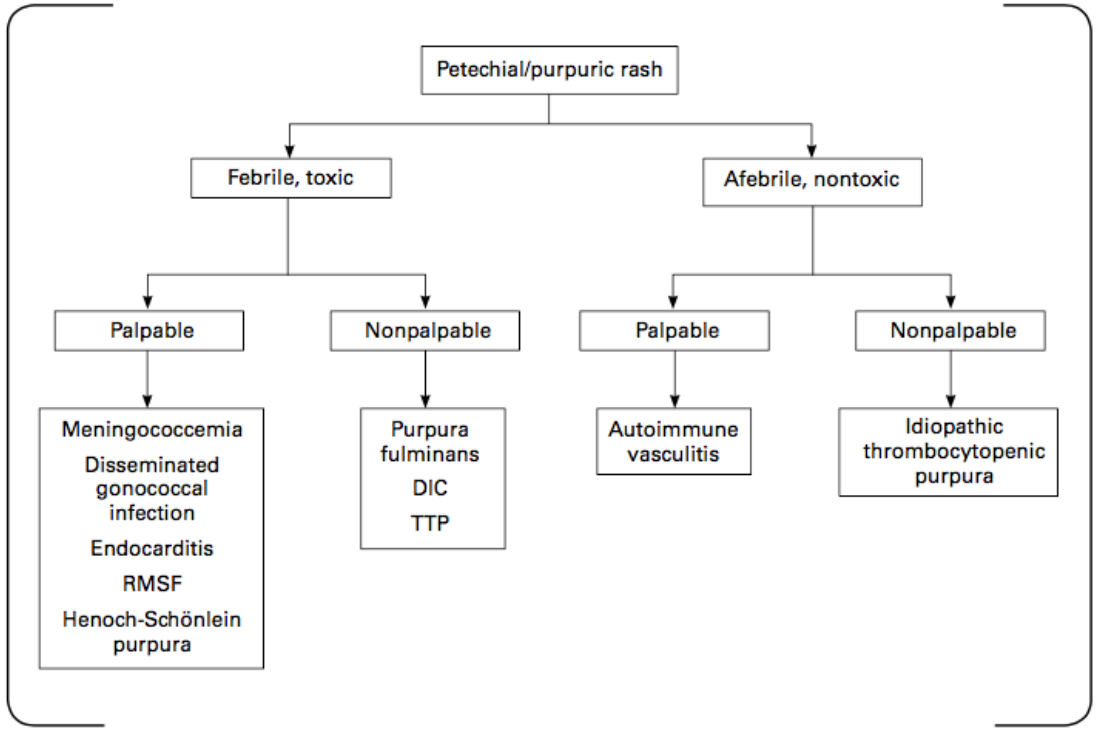
Murphy-Lavoie H, Le Gros TL. Emergent Diagnosis of the Unknown Rash. *Emergency Medicine*. 2010 March.

Michelle Lin https://aliemcards.com/cards/rash-unknown/

Approach to the "Unknown Rash"



DIC = disseminated intravascular coagulopathy.



RMSF = Rocky Mountain spotted fever; DIC = disseminated intravascular coagulopathy; TTP = thrombotic thrombocytopenic purpura.

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Algorithm for the unknown rash

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