"Skin in the Ring: Common Dermatoses and Infections in Wrestlers"

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Financial Disclosure

- I have no relevant financial conflicts to disclose

  - Celgene
    - A Phase 3, multi-center, randomized, double-blind, placebo-controlled study to assess the efficacy and safety of apremilast in pediatric subjects from 6 -17 years with moderate to severe plaque psoriasis
  - Pfizer
    - A Phase 3 Multi-center, Long Term Extension Study Investigating the Efficacy and Safety of PF-04965842, with or without Topical Medications, Administered to Subjects Aged 12 Years and Older with Moderate to Severe Atopic Dermatitis
  - Novan
    - Data Safety Monitoring Board, Consulting Fee

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Objectives

- Identify common dermatologic conditions in wrestlers and other athletes
  - Infectious
  - Non-infectious
- Review over the counter treatment options
- Discuss when to refer to dermatology

Today's Topics

- Infectious
  - Impetigo
  - Folliculitis
  - Herpes Simplex
  - Pityriasis rosea
  - Tinea (capitis, cruris, pedis)
  - Tinea versicolor
  - Verruca vulgaris
  - Molluscum
- Non-Infectious
  - Atopic dermatitis
    - Pityriasis alba
    - Contact dermatitis
  - Seborrheic dermatitis
  - Perioral dermatitis

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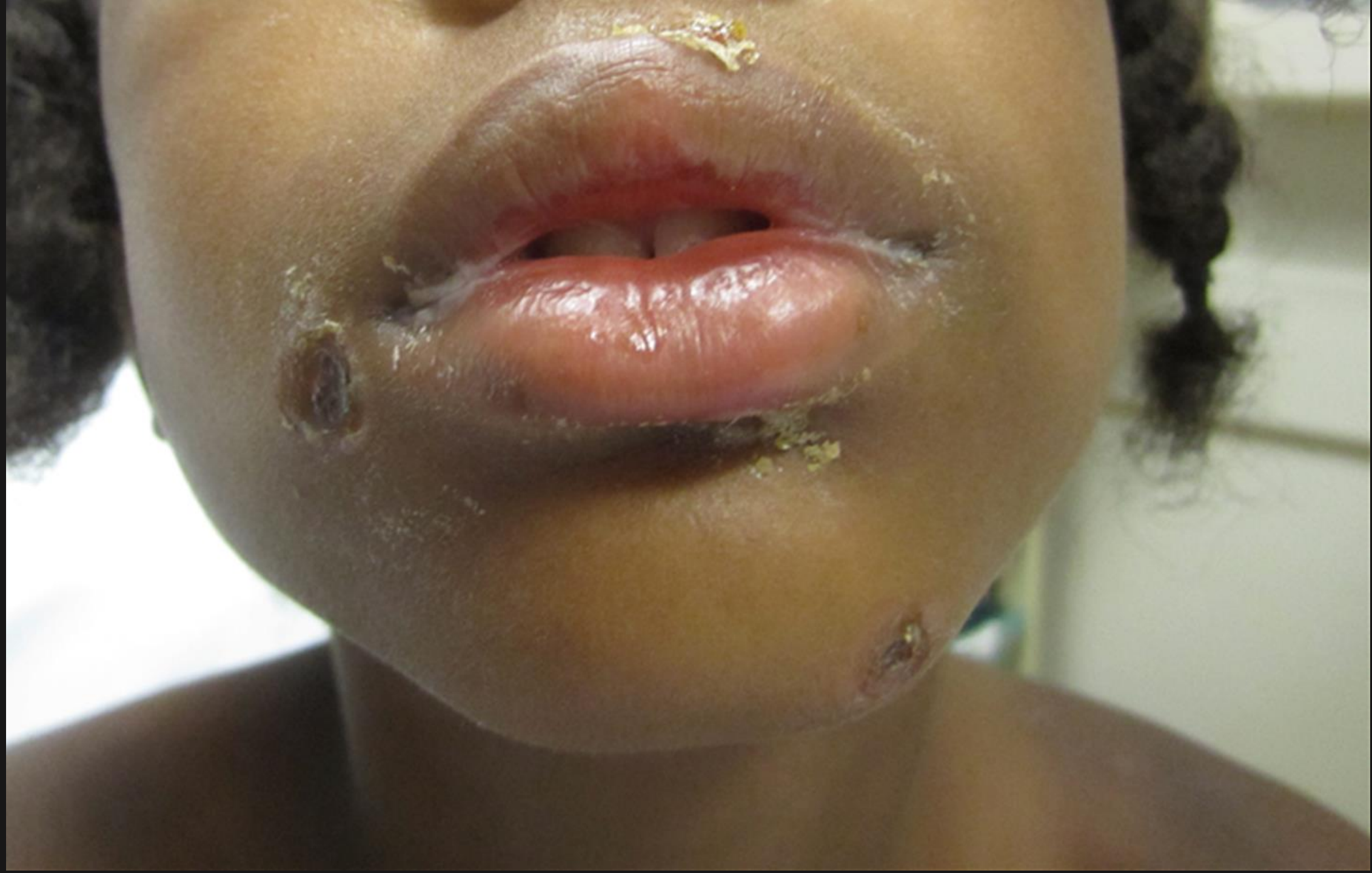

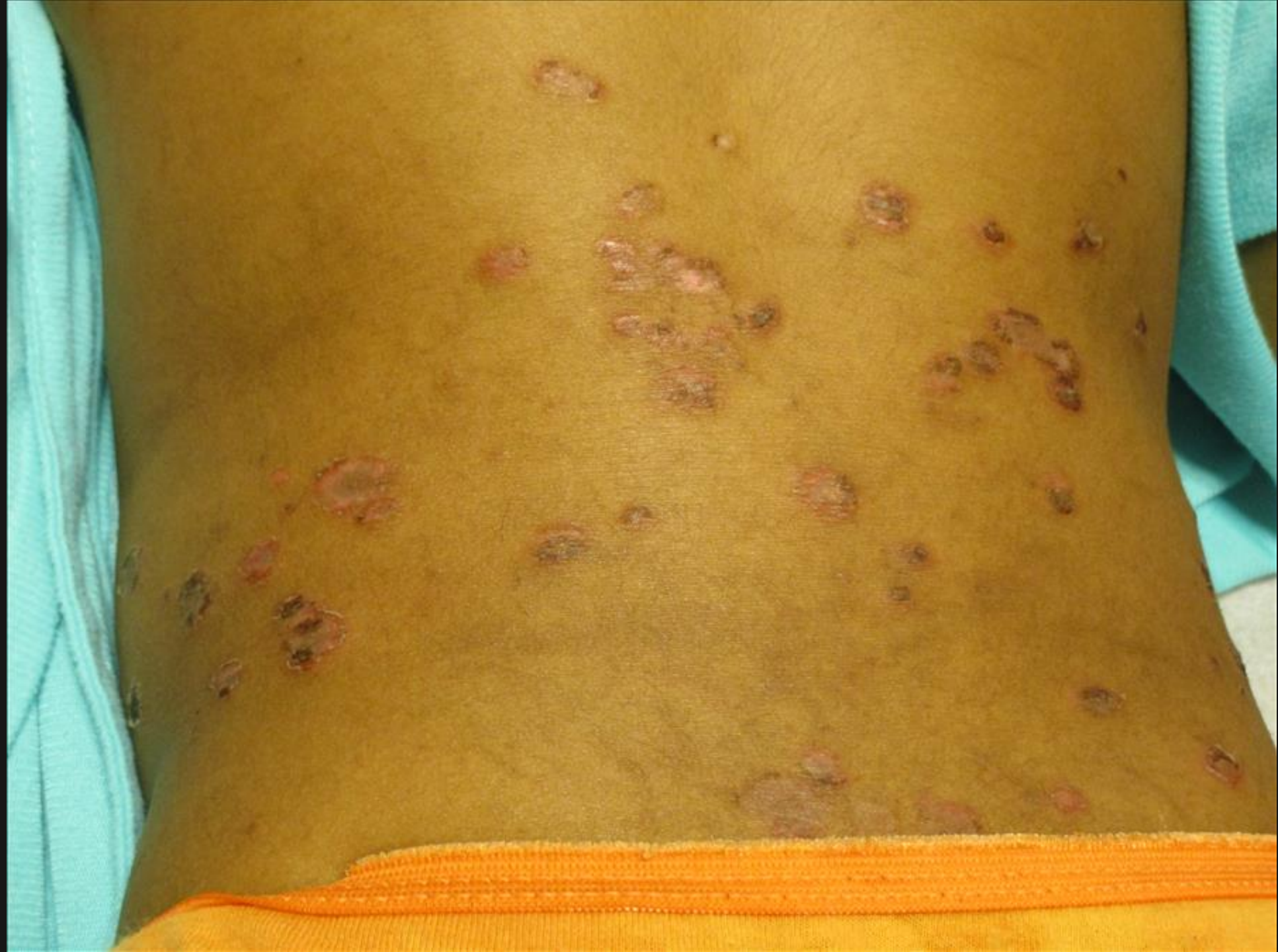

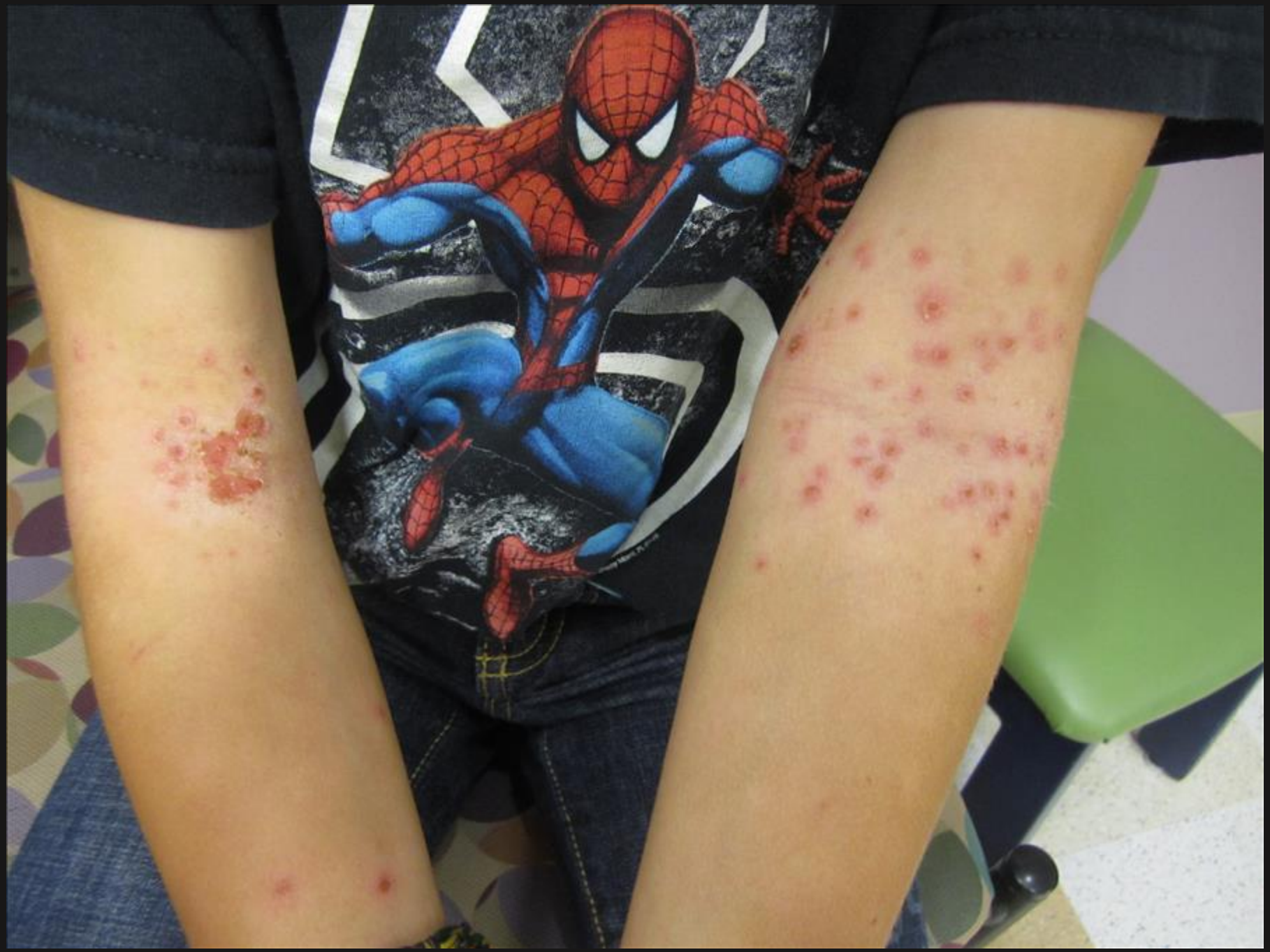

Impetigo

- Seen in infants through school age children
  - Bullous type more common (*Staph aureus)*
- Highly infectious
  - *Staph* more common than *strep* (historically GABHS)
- Treatment
  - Topical antibiotics (prescription mupirocin, OTC double antibiotic) if limited
  - Oral antibiotics
    - Penicillinase-resistant penicillin
    - 1st or 2nd generation cephalosporin, clindamycin, etc
  - Aluminum acetate soaks (to help with crusting)

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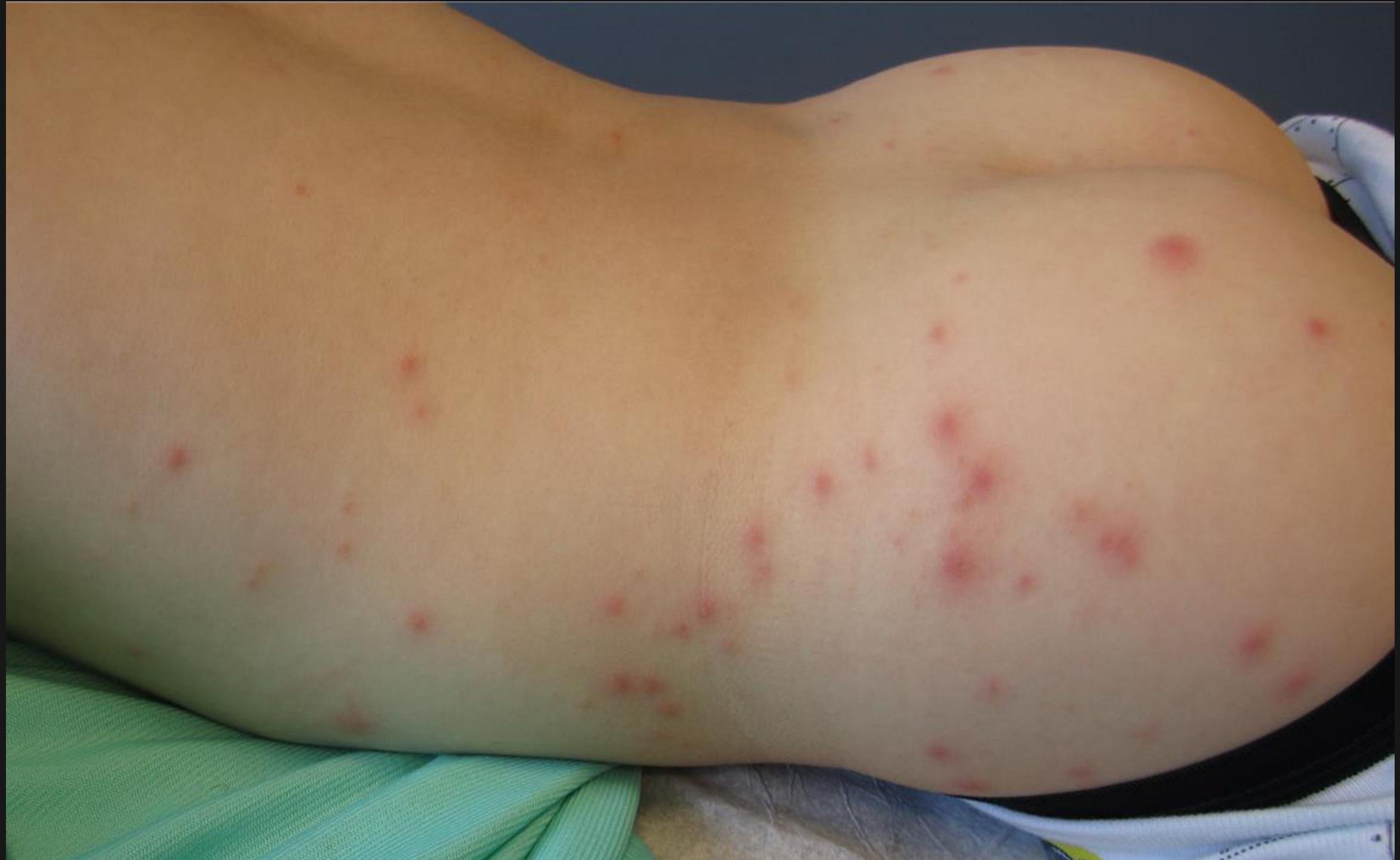
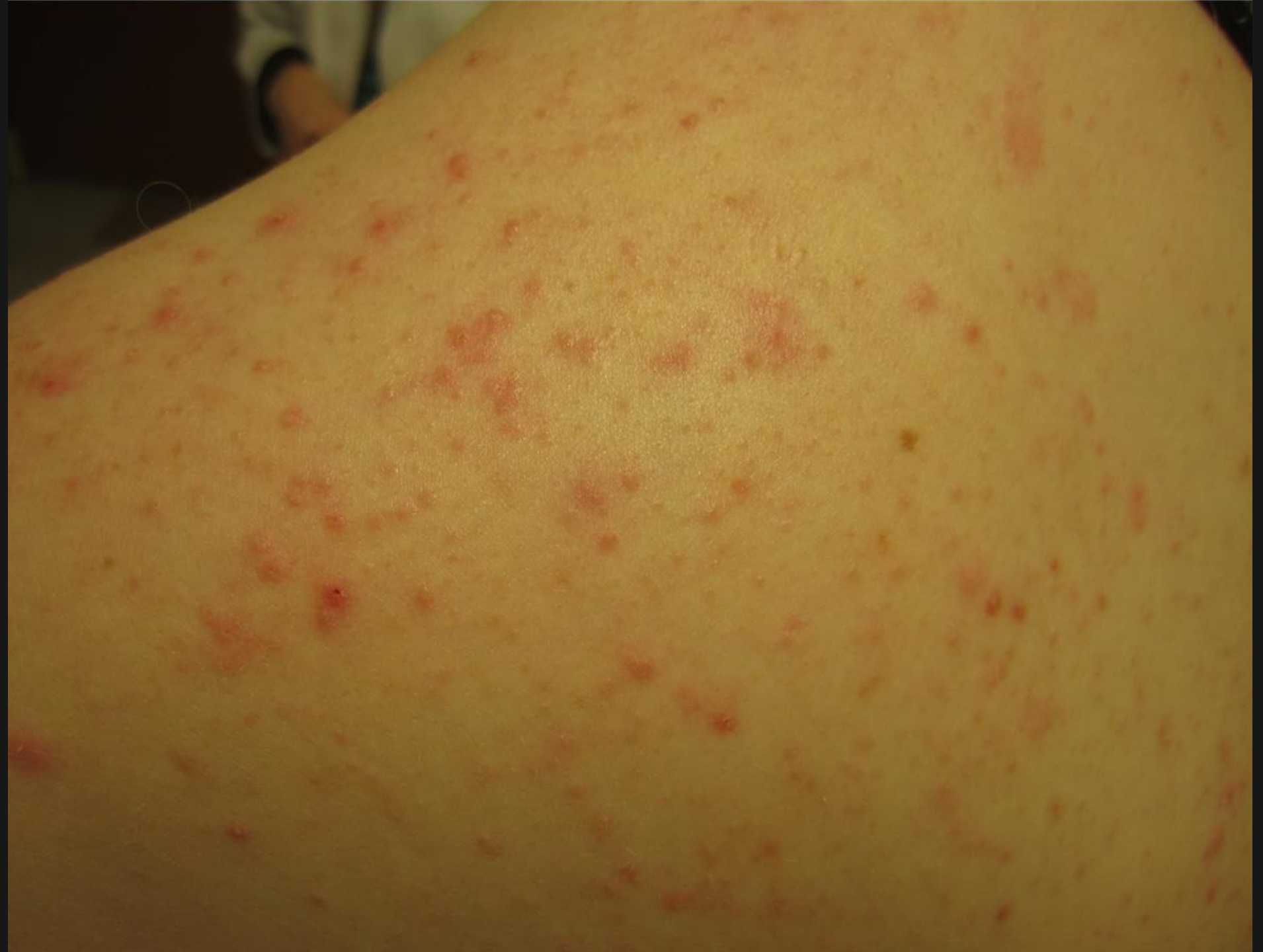
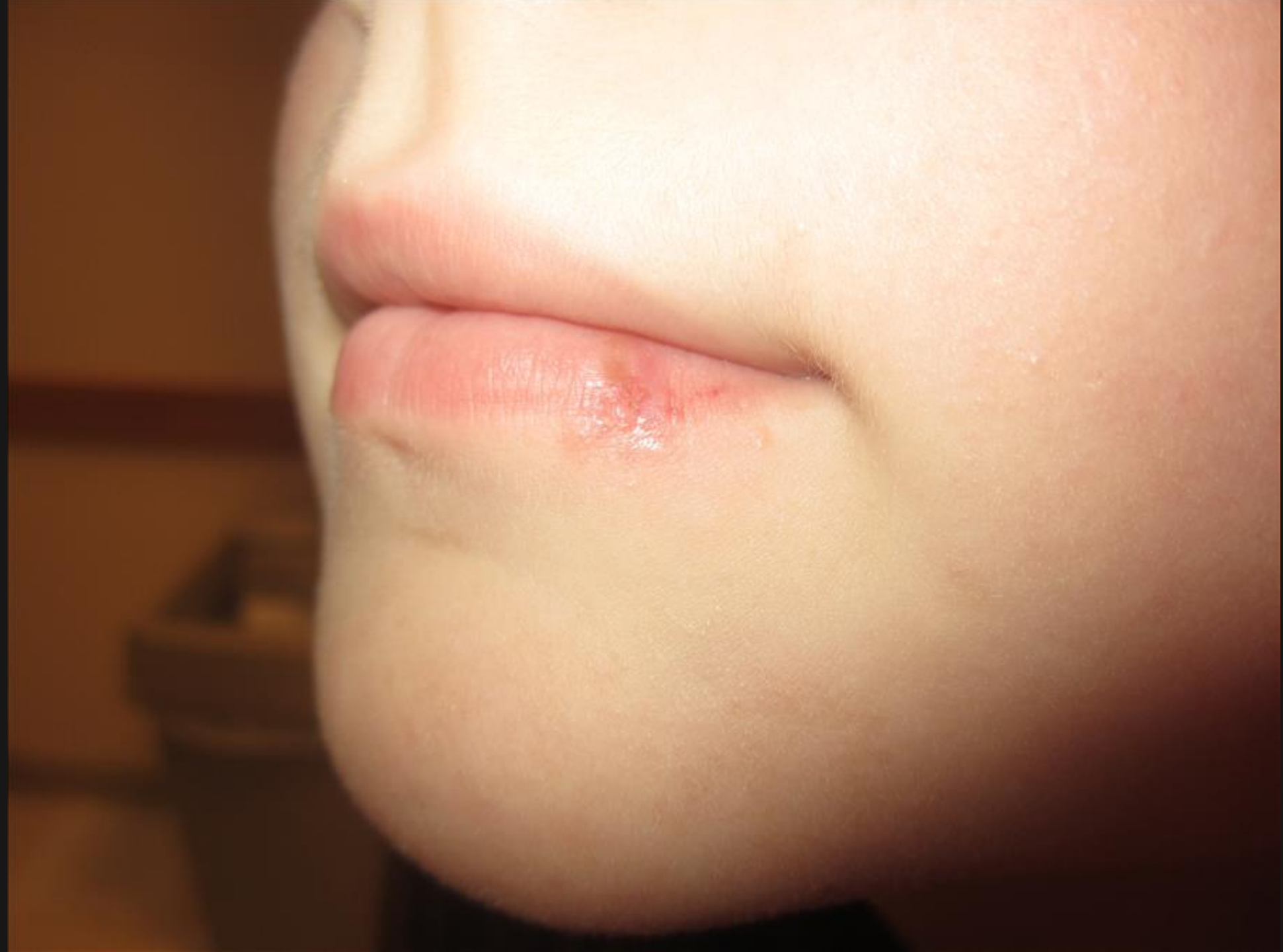
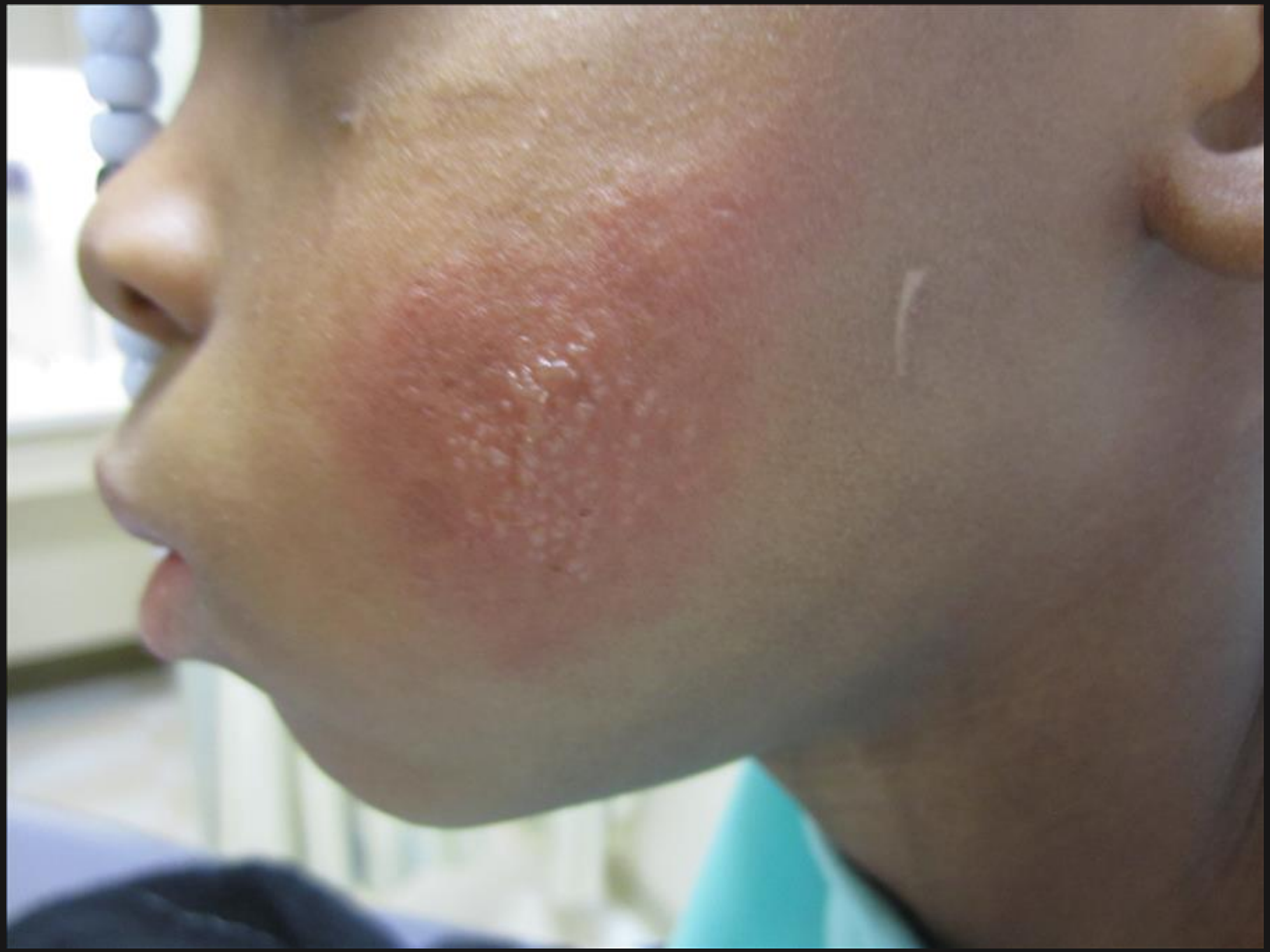




Folliculitis

- Inflammatory reaction involving the hair follicle
- Typically related to bacteria on the skin and occlusion
- Can exist on a spectrum with acne
- Treatment
  - Benzoyl peroxide wash/gel (over-the-counter)
  - Topical antibiotics – clindamycin (prescription)
  - Oral antibiotics:
    - doxycycline, minocycline (if older than 8 years)
    - Cephalexin, clindamycin
  - Dilute bleach baths
  - Chlorhexidine wash



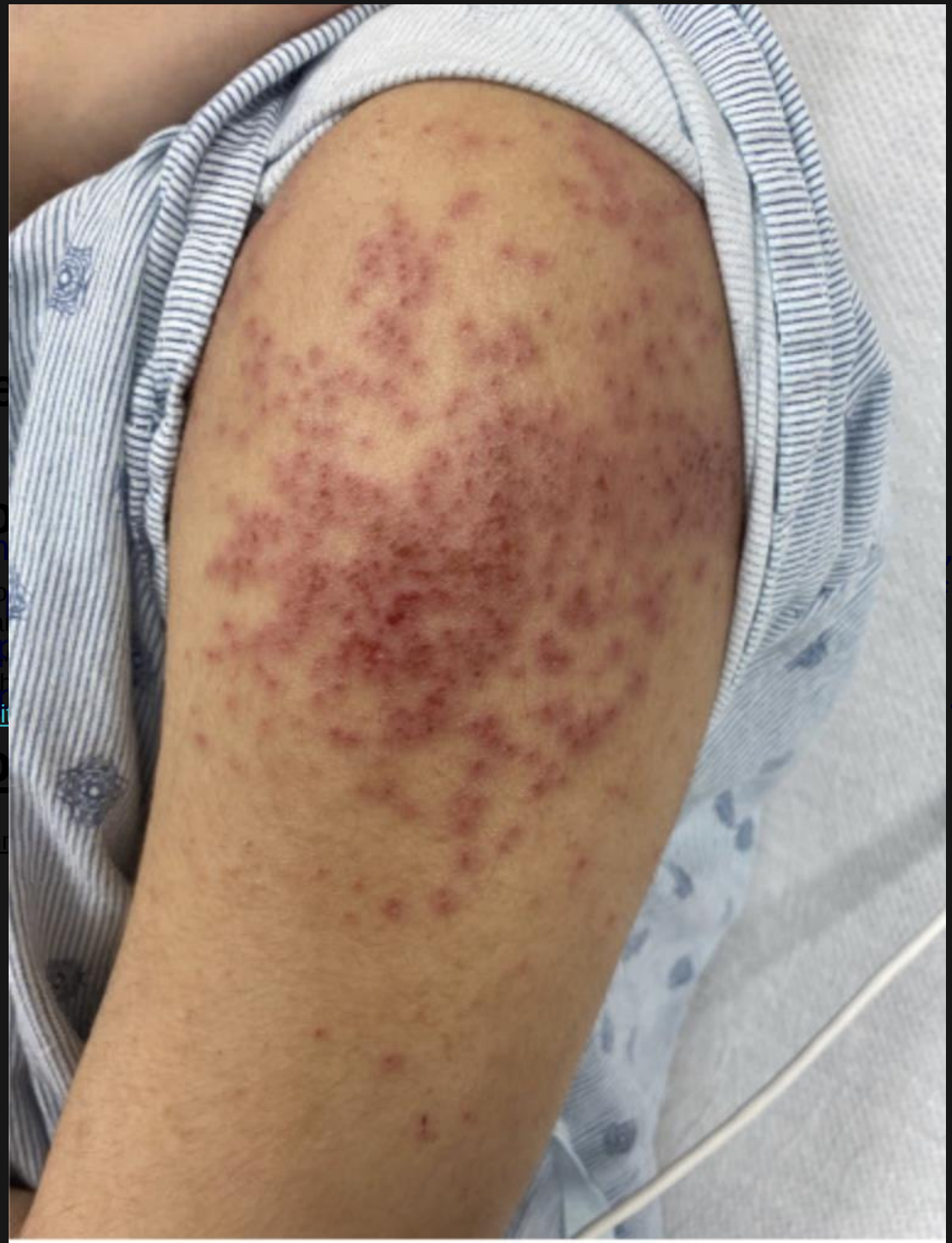


Herpes simplex

- Grouped red vesicles, “punched-out” erosions, crusting
  - Often painful, prickly, tingling
  - May have prodromal response (fevers, myalgias, etc)
- Location (anywhere!)
  - Facial lesions
  - Scalp
  - Buttocks
- Herpetic whitlow
  - Fingers
  - Toes
- Genital lesions
  - Not always sexual abuse, but does raise concern
- Gingivostomatitis

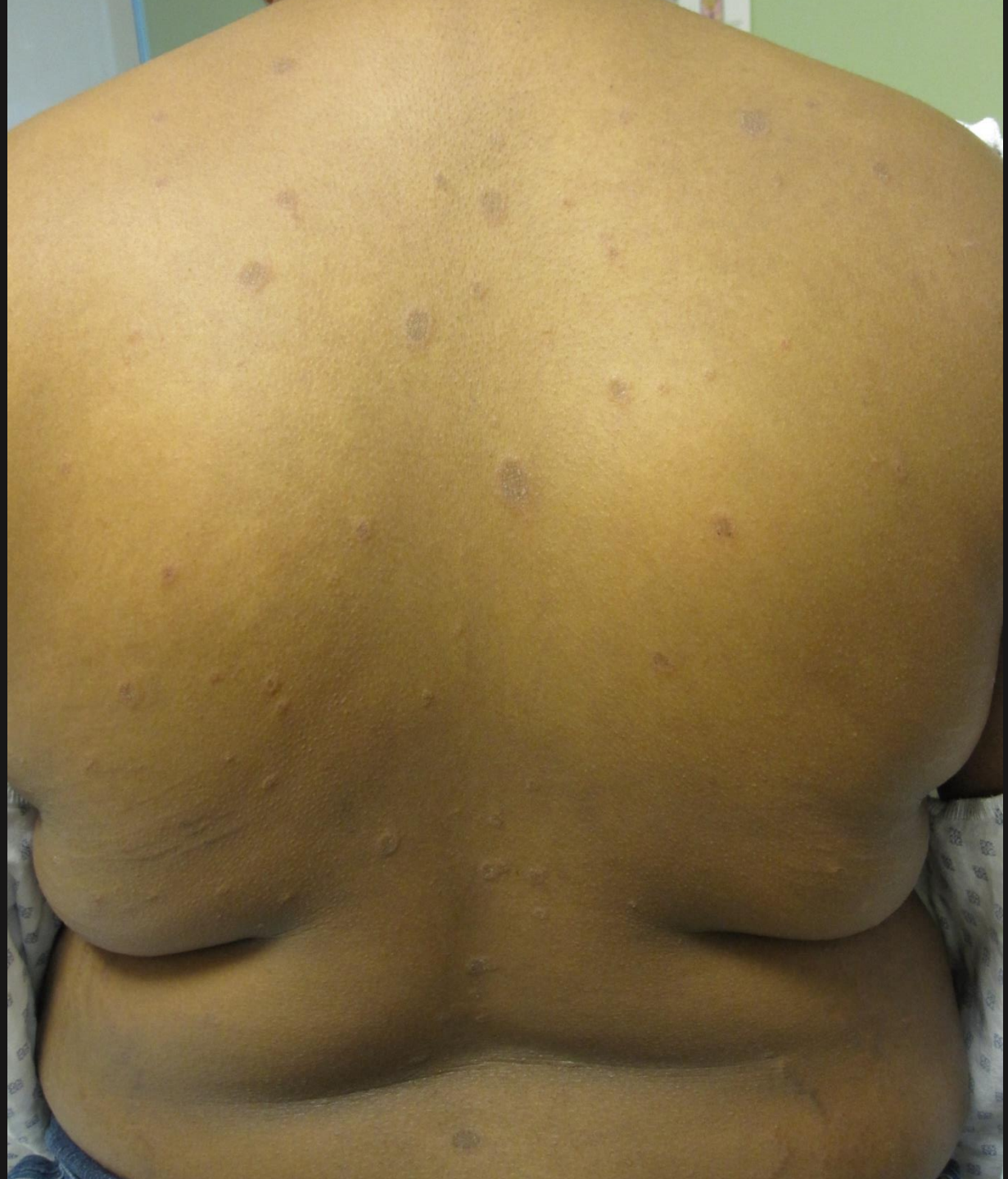
Herpes simplex

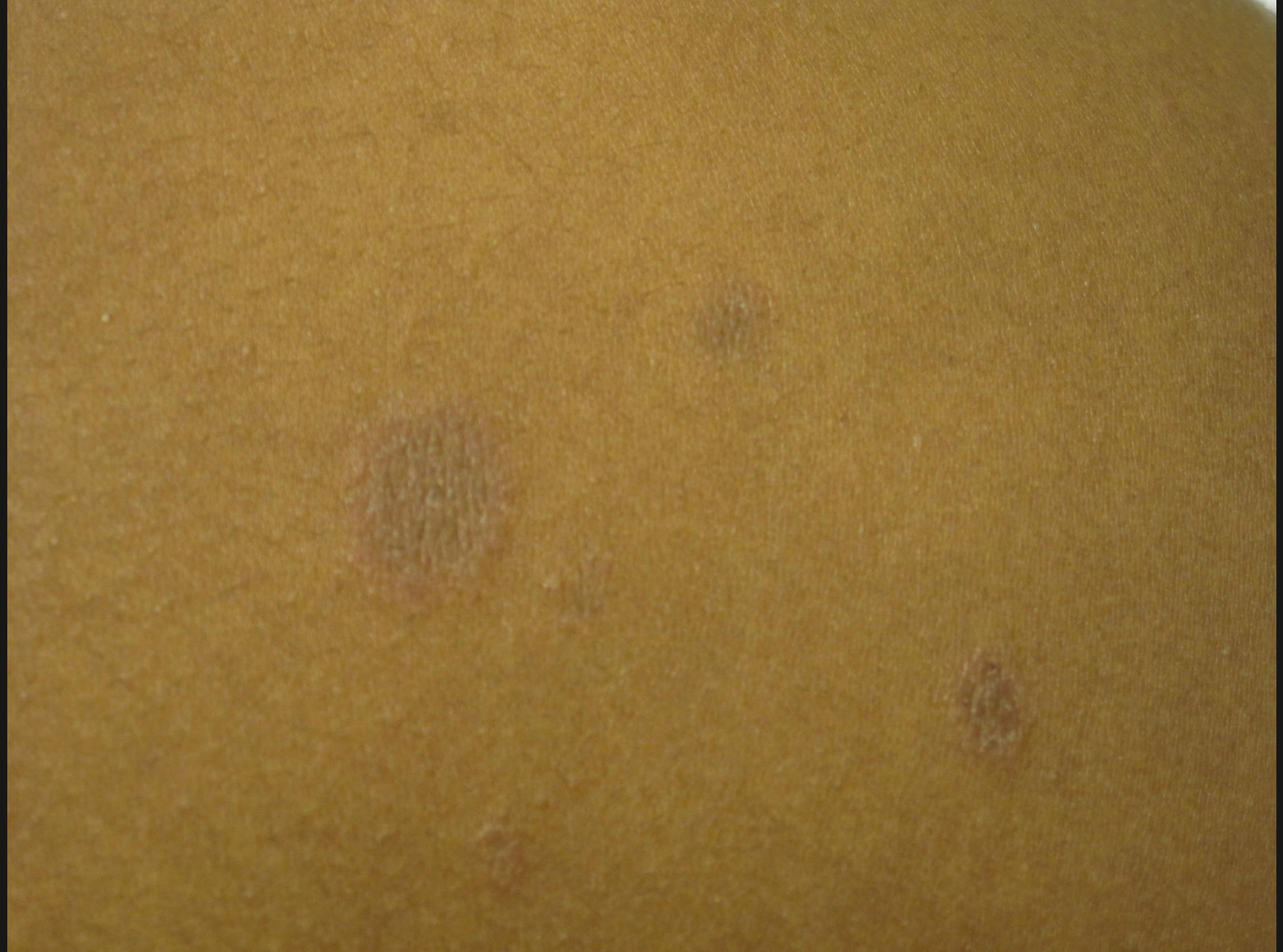
- Primary infection may go unnoticed
- Secondary re-infection usually with clinical findings
- Diagnosis
  - Tzanck preparation
  - HSV PCR
  - Culture (only for sensitivities)
- *Treatment should be prescription*
- Acyclovir (or valacyclovir)
  - Acyclovir x 7 to 10 days for initial
  - Valacyclovir 2 g x 2 doses in 1 day teens and adults
- Chronic immune suppression
  - 30 mg/kg/day divided q8h acyclovir
  - 1000 mg daily valacyclovir

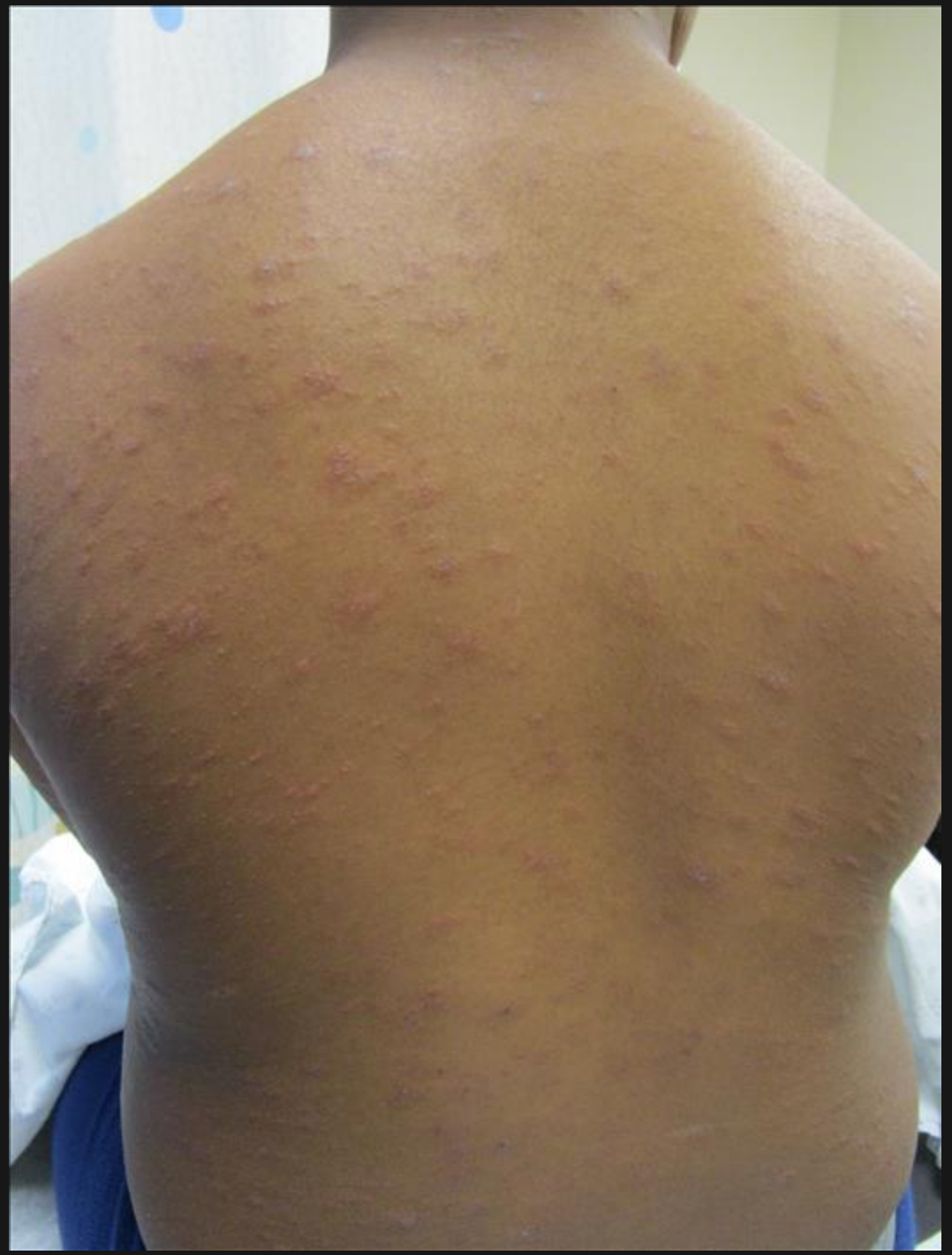


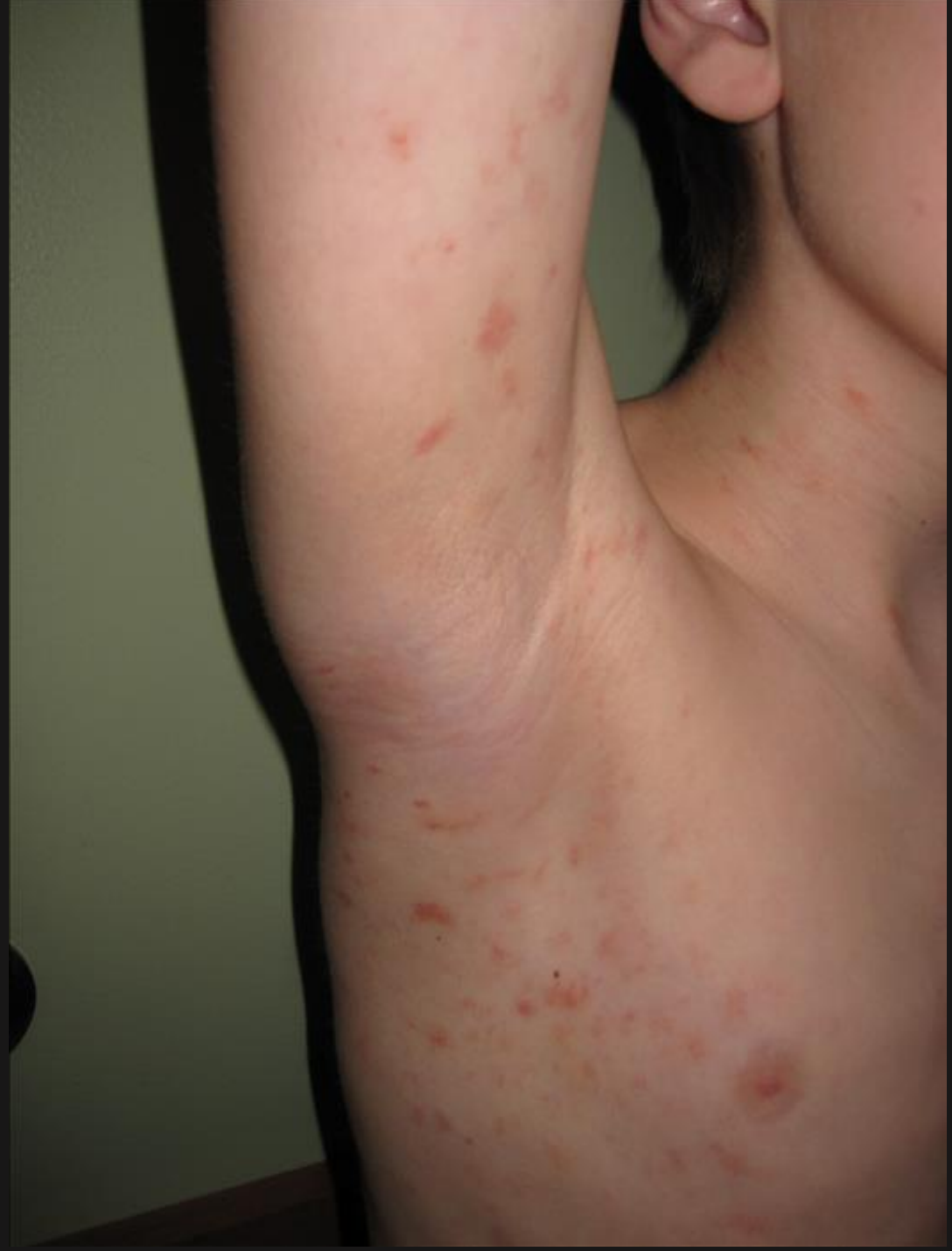
Eczema Herpeticum

- HSV PCR can be helpful
- Secondary bacterial infection is common
  - Do bacterial culture
- May need hospitalization, particularly if fevers
- Treatment
  - Systemic Antivirals
  - Systemic Antibiotics (+/-)
  - Topical steroids



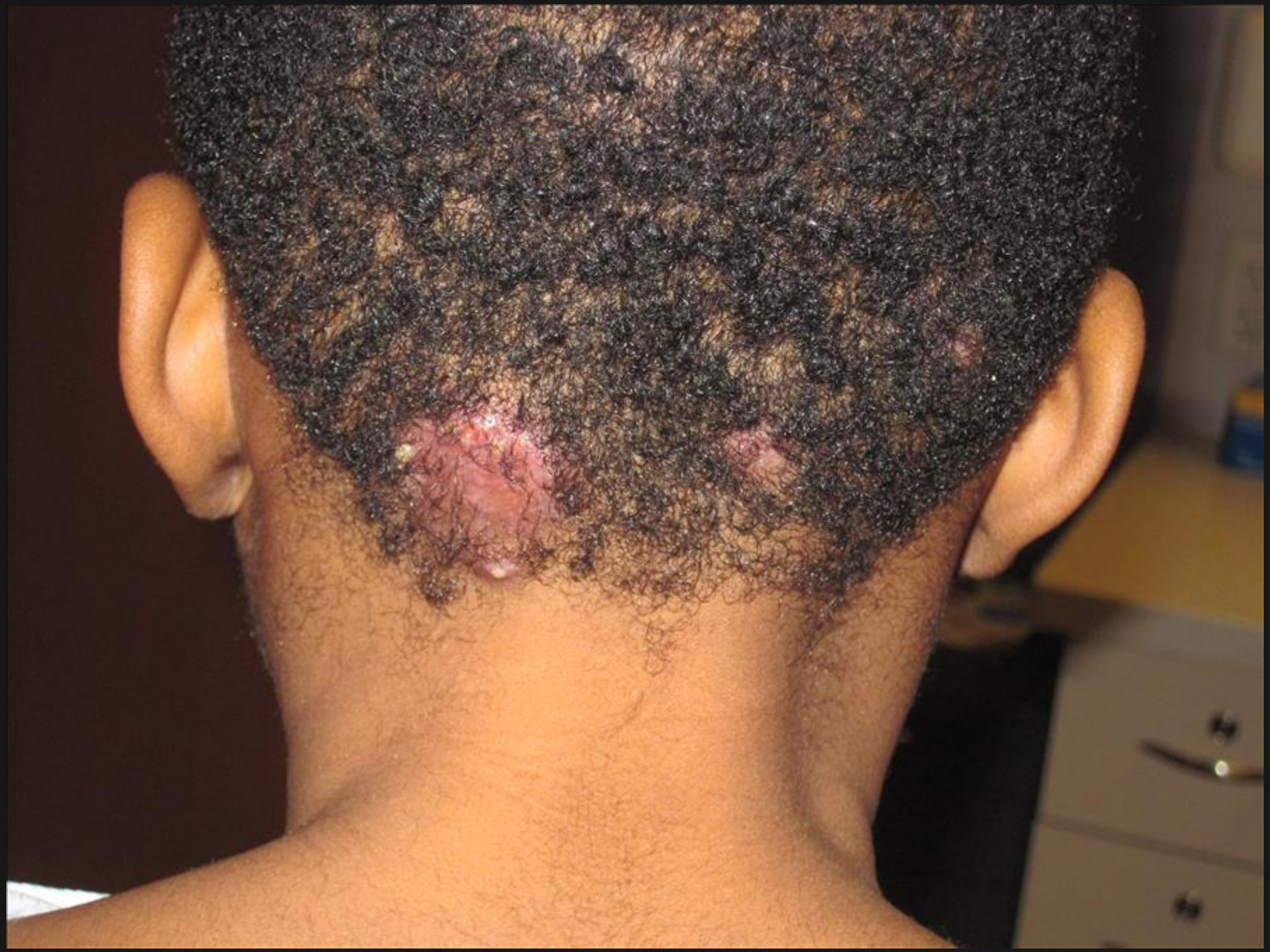






Pityriasis rosea

- Common in teenagers
- Due to HHV-6 or HHV-7
- Clinical
  - ? Viral prodrome
  - May develop larger “herald patch” up to one week before
    - Scaly red-brown-violet plaque
  - Numerous other smaller plaques appear in “fir-tree” pattern on back/torso/buttocks
  - Present for 2-6 weeks
- No treatment required
- If persistent, refer to specialist for consideration of other etiologies



Tinea capitis

- Common in young and school age children
- Patchy hair loss
  - Inflammation and pustules to some degree
  - “Black dots”
  - Often have positive cervical lymphadenopathy (LAD)
- Diagnosis
  - Fungal culture – grows dermatophytes (*Trichophyton, Microsporum*)
- Treatment
  - Topicals are not enough!
  - Oral therapy (griseofulvin at 20-25mg/kg/day BID x 8 weeks)
  - Terbinafine x 4 to 6 weeks
- Antifungal shampoo

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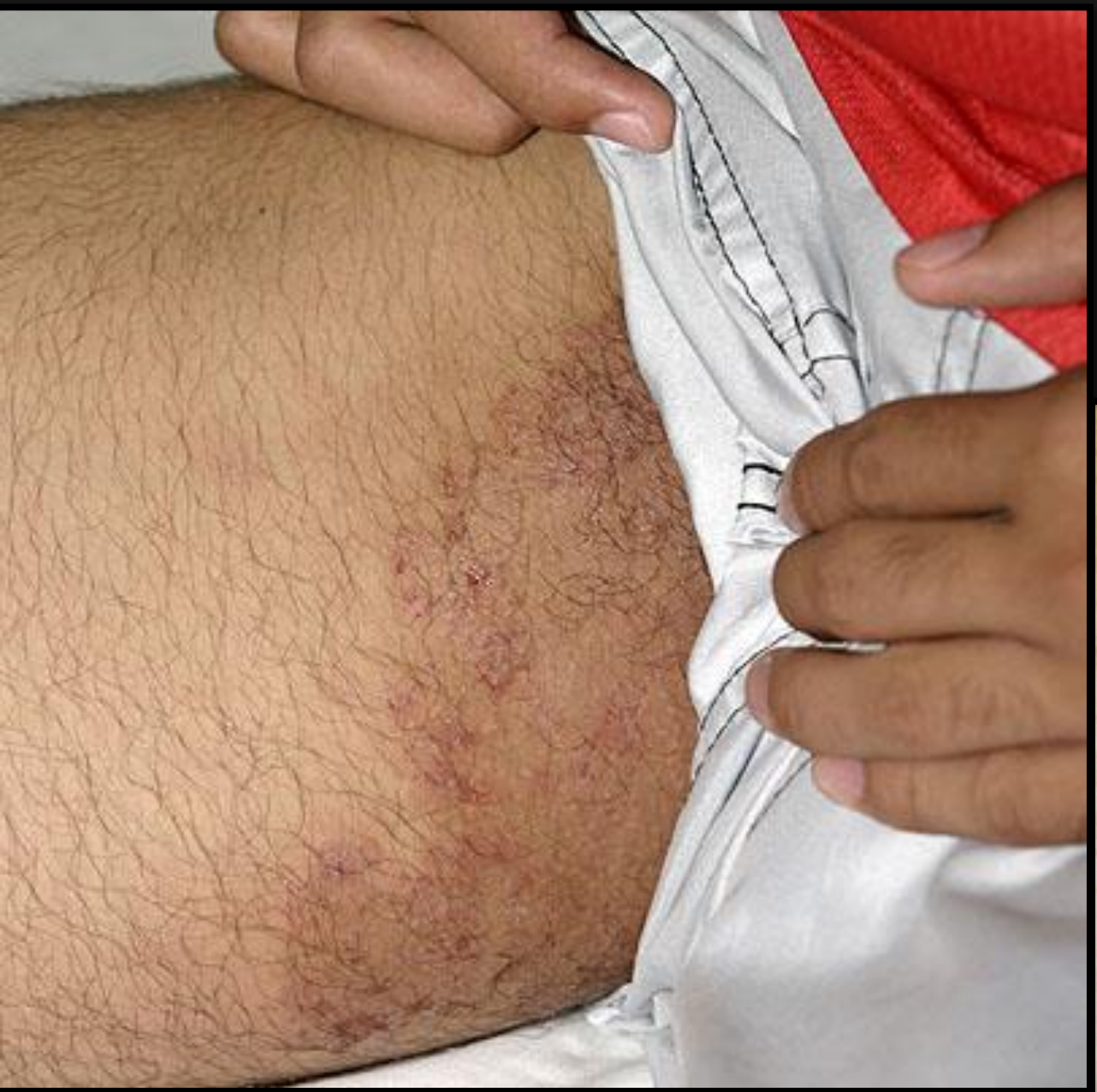
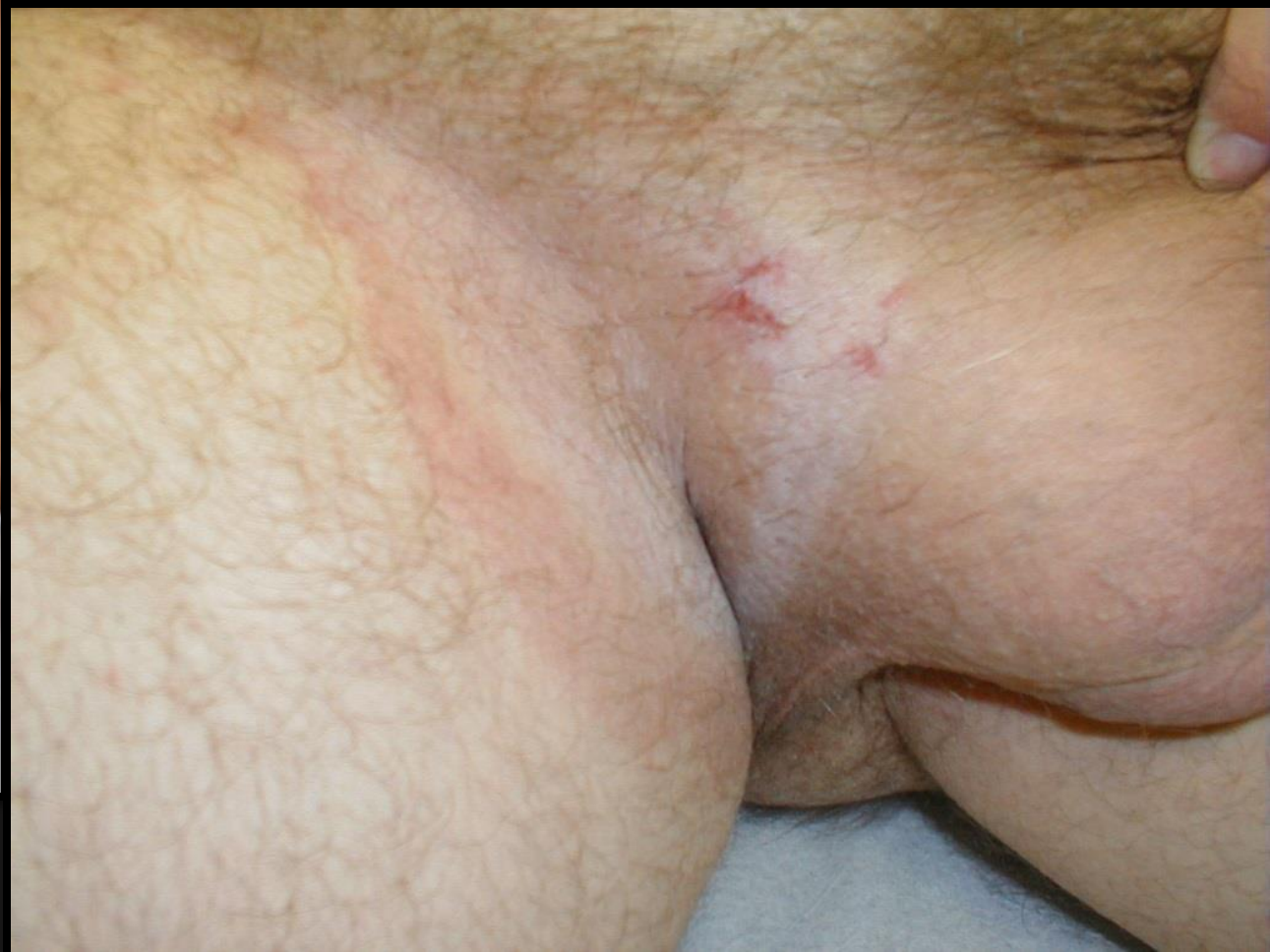
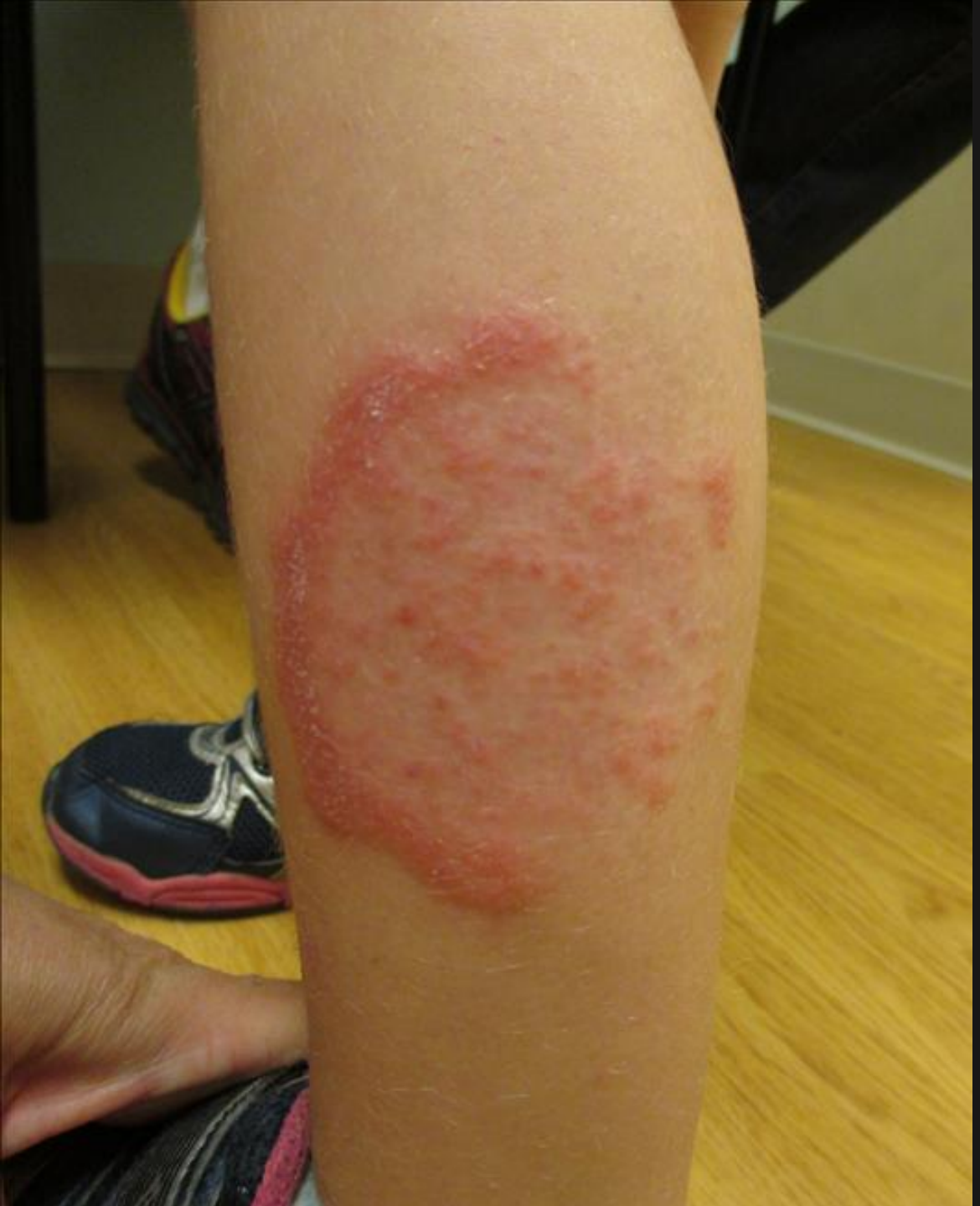
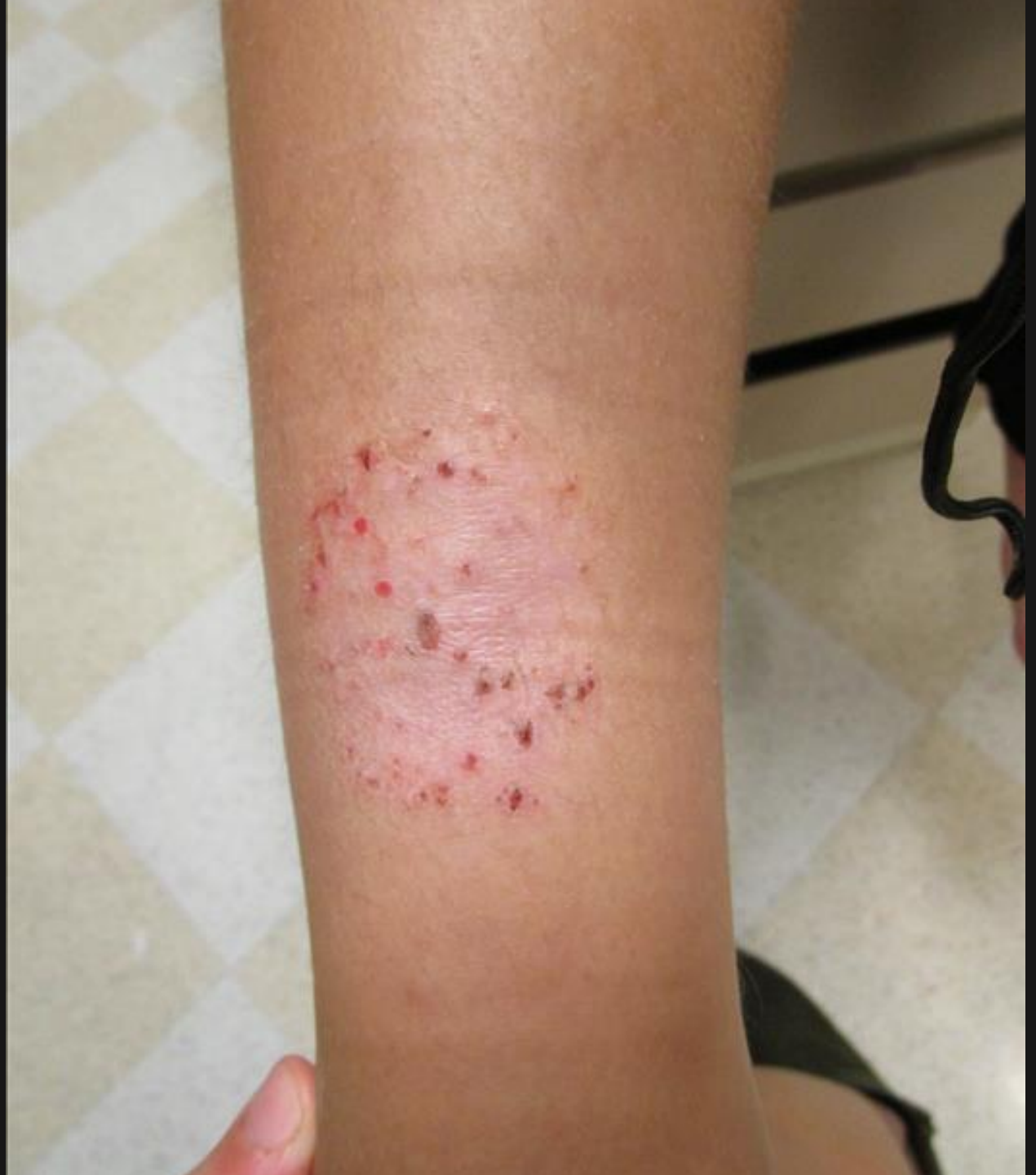




Tinea Cruris

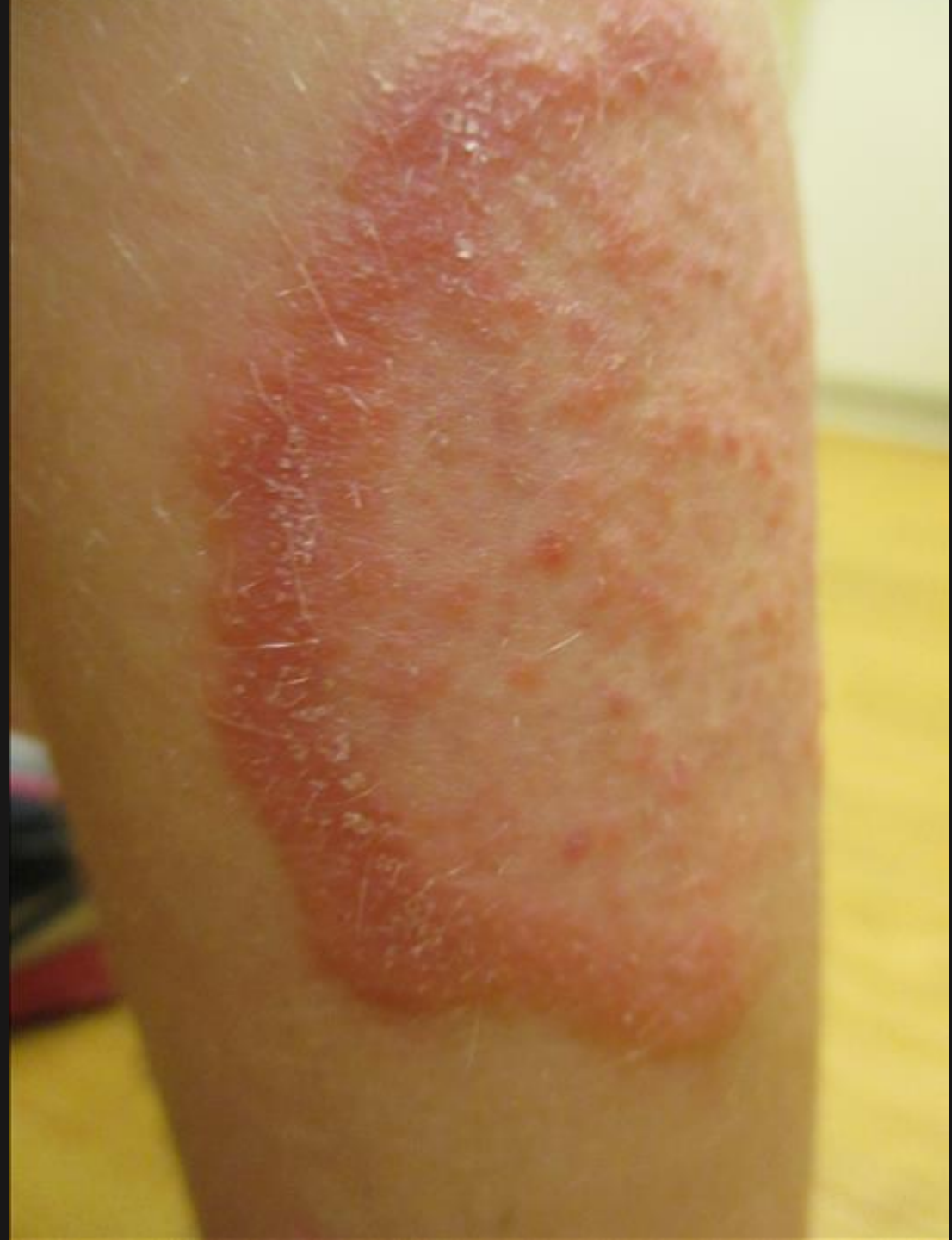
- Favors folds
- Typically can use a topical OTC antifungal aimed at dermatophytes
  - Clotrimazole (will also cover candida)
  - Terbinafine
  - 2 to 4 weeks for treatment
- Check the feet!
- May need oral antifungals depending on severity
- Antifungal powder can be helpful for prevention

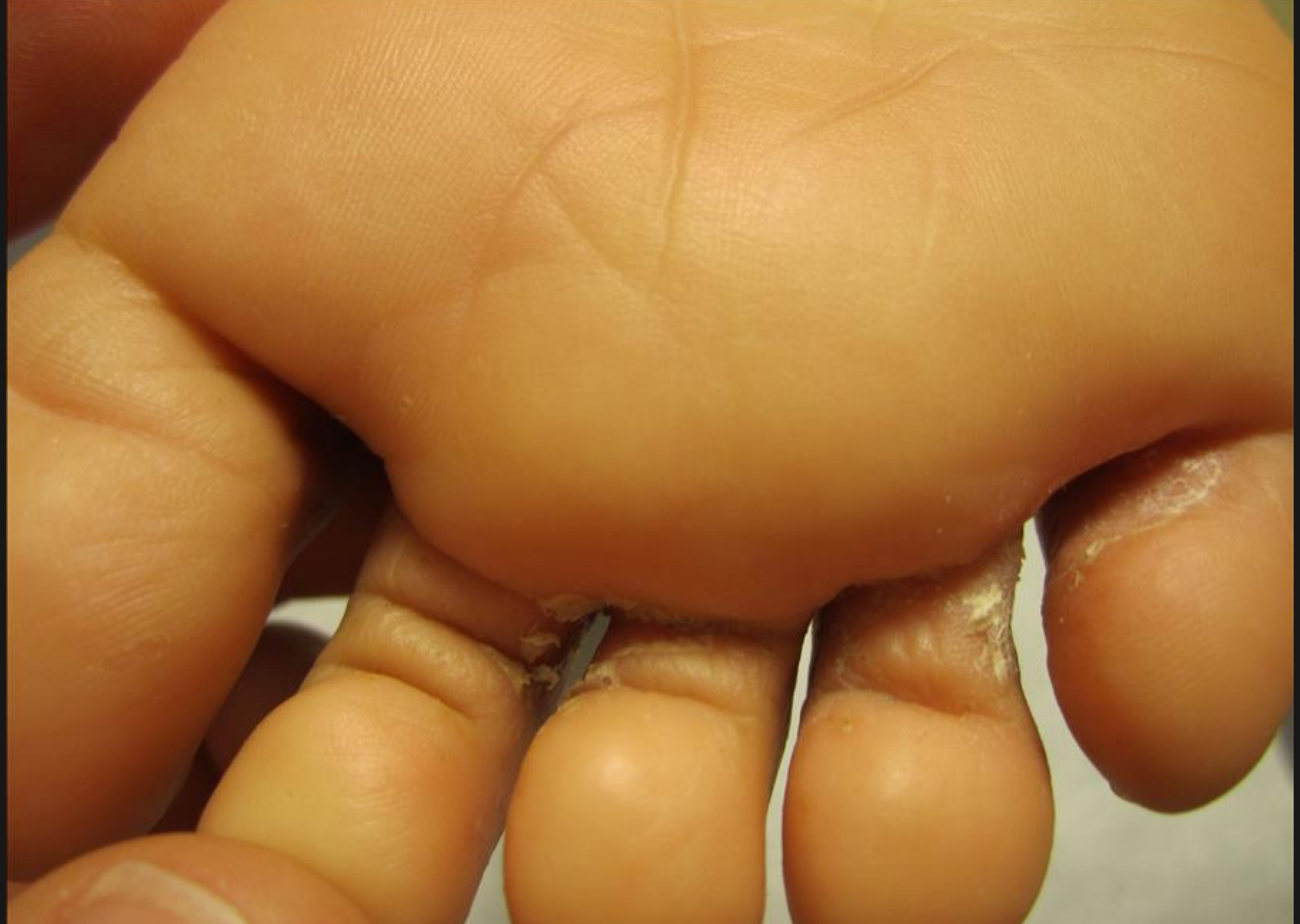




Tinea corporis

- Typically can use a topical OTC antifungal aimed at dermatophytes
  - Clotrimazole (will also cover candida)
  - Terbinafine
  - 2 to 4 weeks for treatment
- Check the feet!
- May need oral antifungals depending on severity or lack of response to above





Tinea Pedis

- Scaling and maceration between the toes
- Typically can use a topical OTC antifungal aimed at dermatophytes
  - Clotrimazole (will also cover candida)
  - Terbinafine
  - 2 to 4 weeks for treatment
- May need oral antifungals depending on severity
- Prevention?
  - Dry feet well
  - Change socks often
  - Clean shoes and shoe lining

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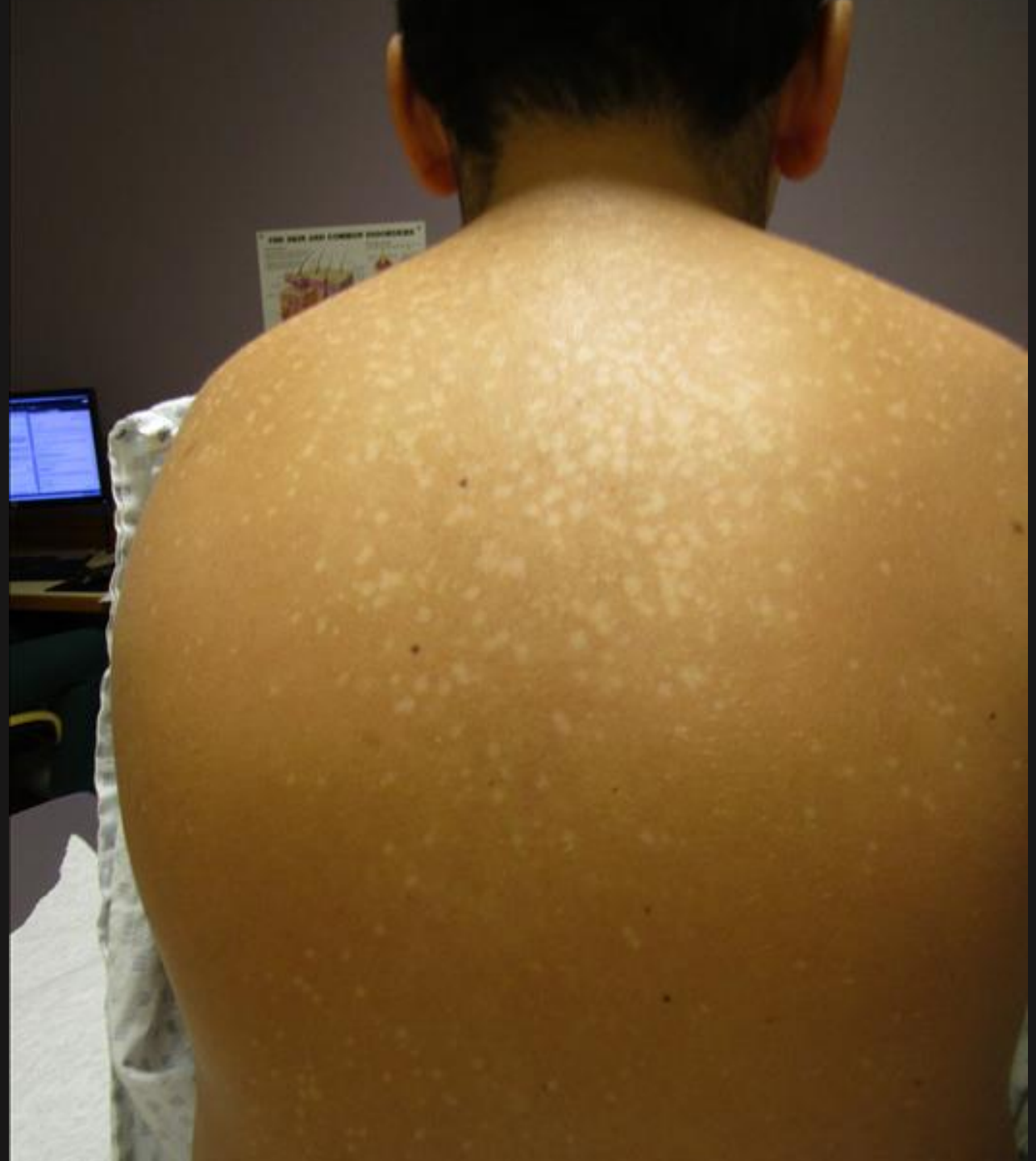
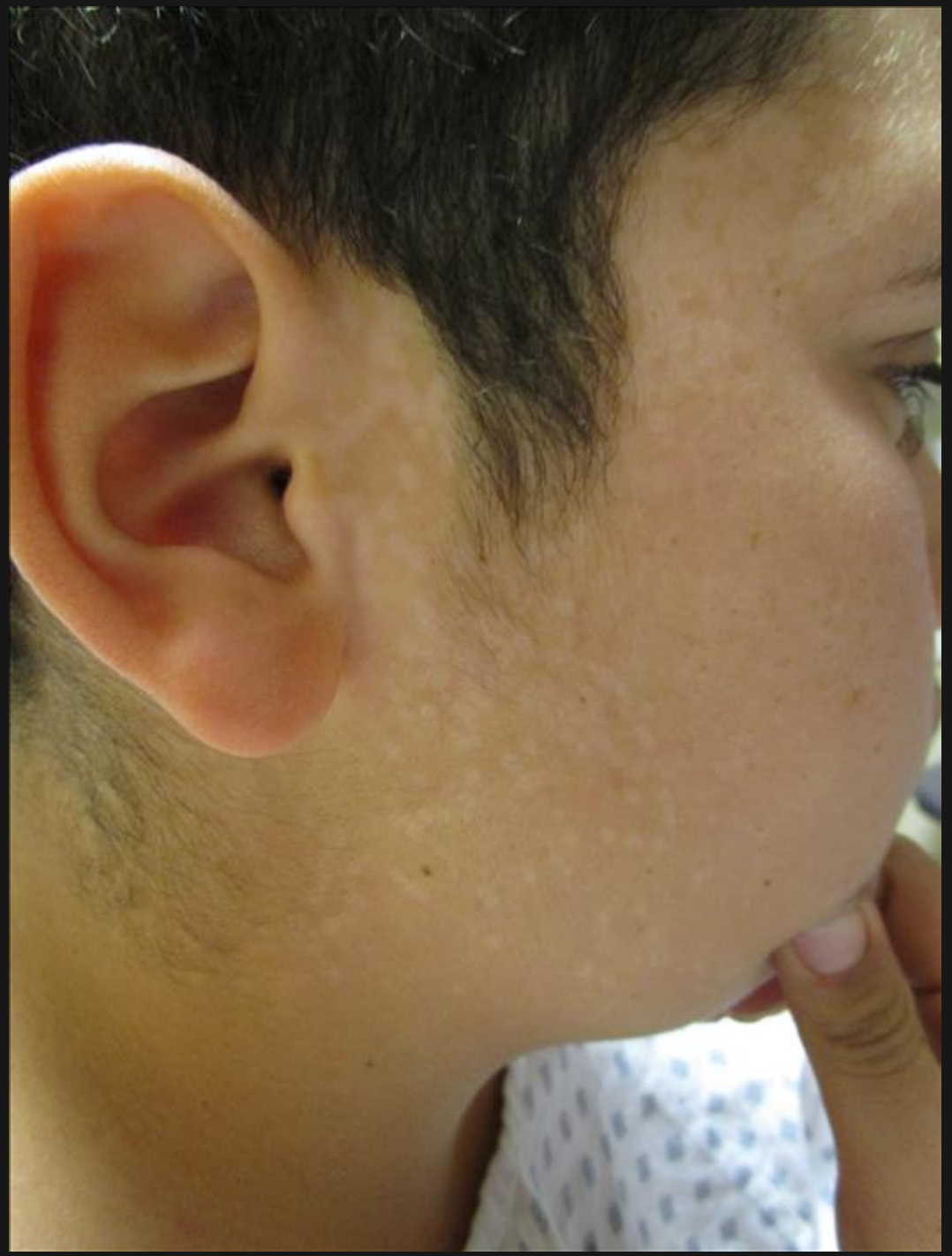
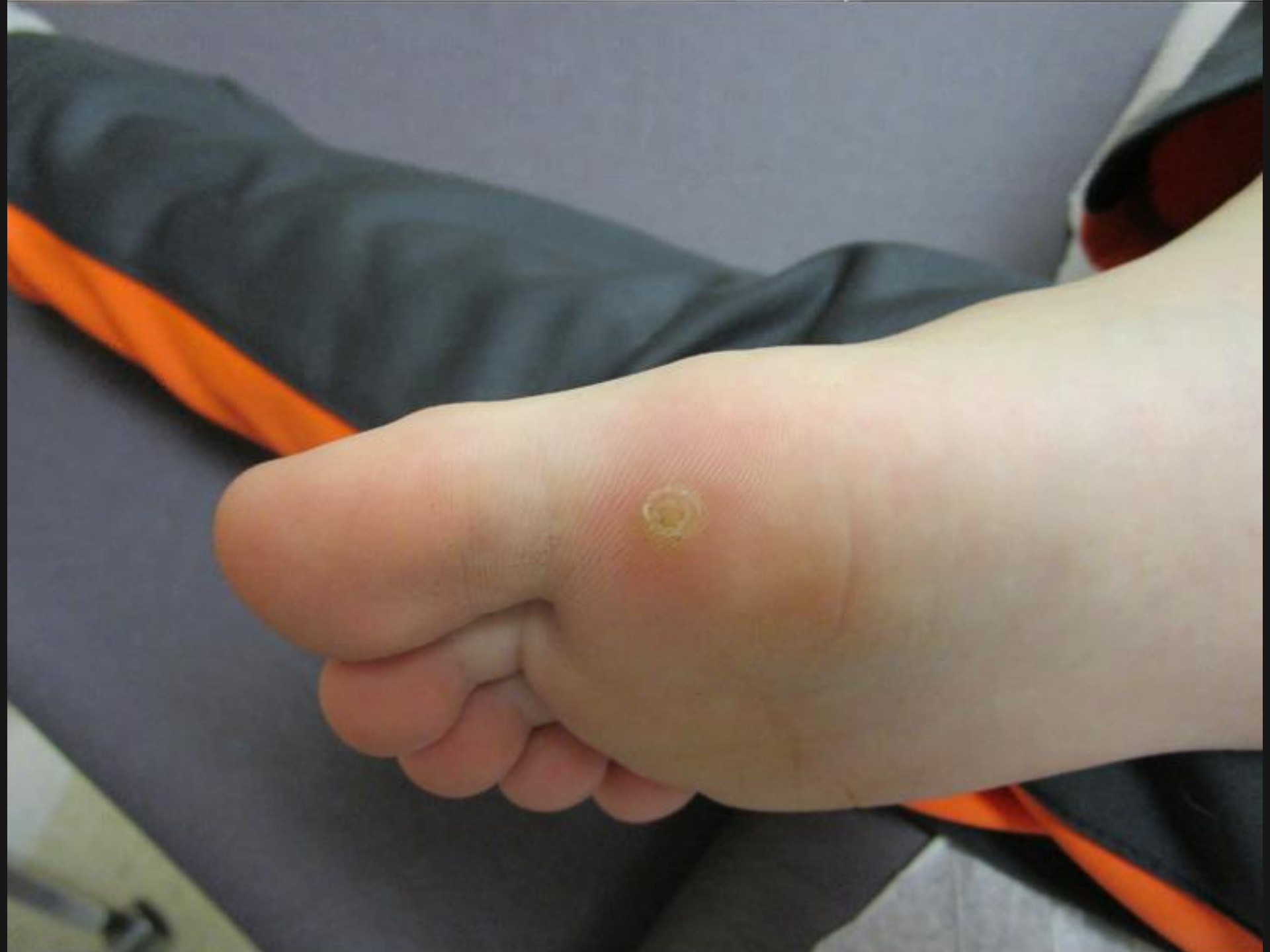
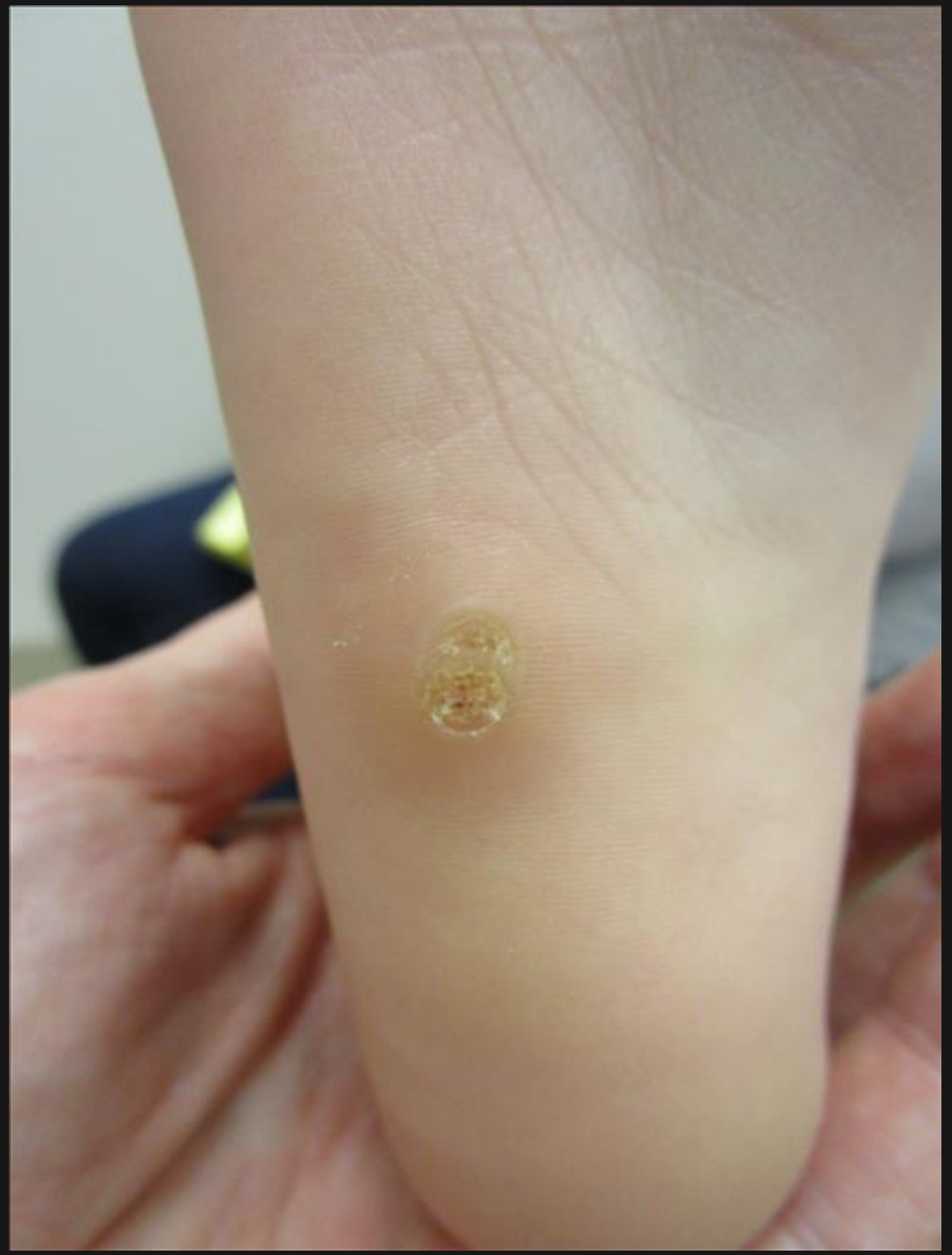


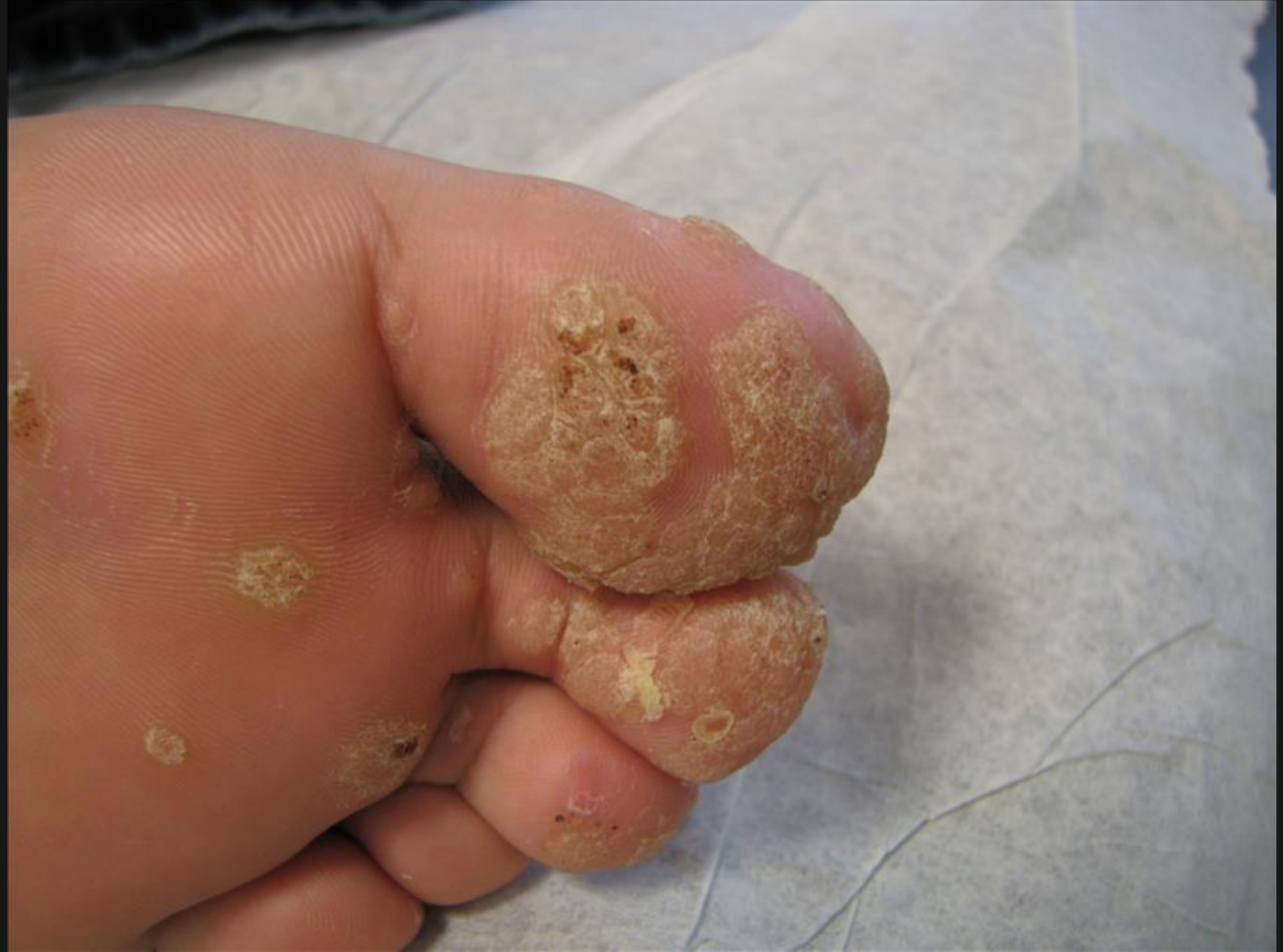


Tinea Versicolor

- *Malassezia spp.*
  - Common commensal yeast
  - Also component of seborrheic dermatitis and cradle cap
- Topical antifungals
  - OTC
    - Topical pyrithione zine or selenium sulfide in the shower
  - Prescription
    - Ketoconazole 2% cream twice daily for a few weeks
    - Ketoconazole 2% shampoo three times weekly in shower

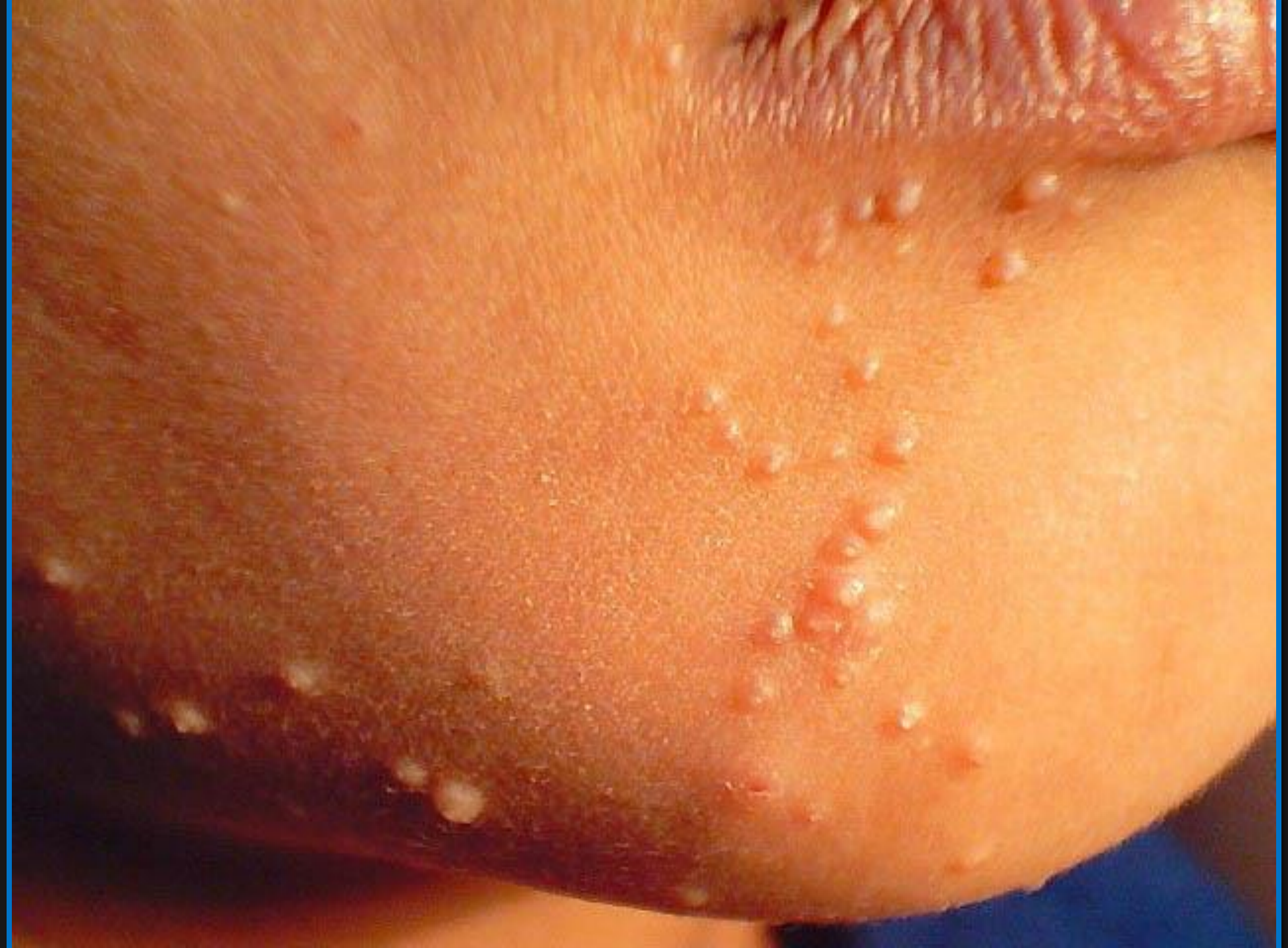


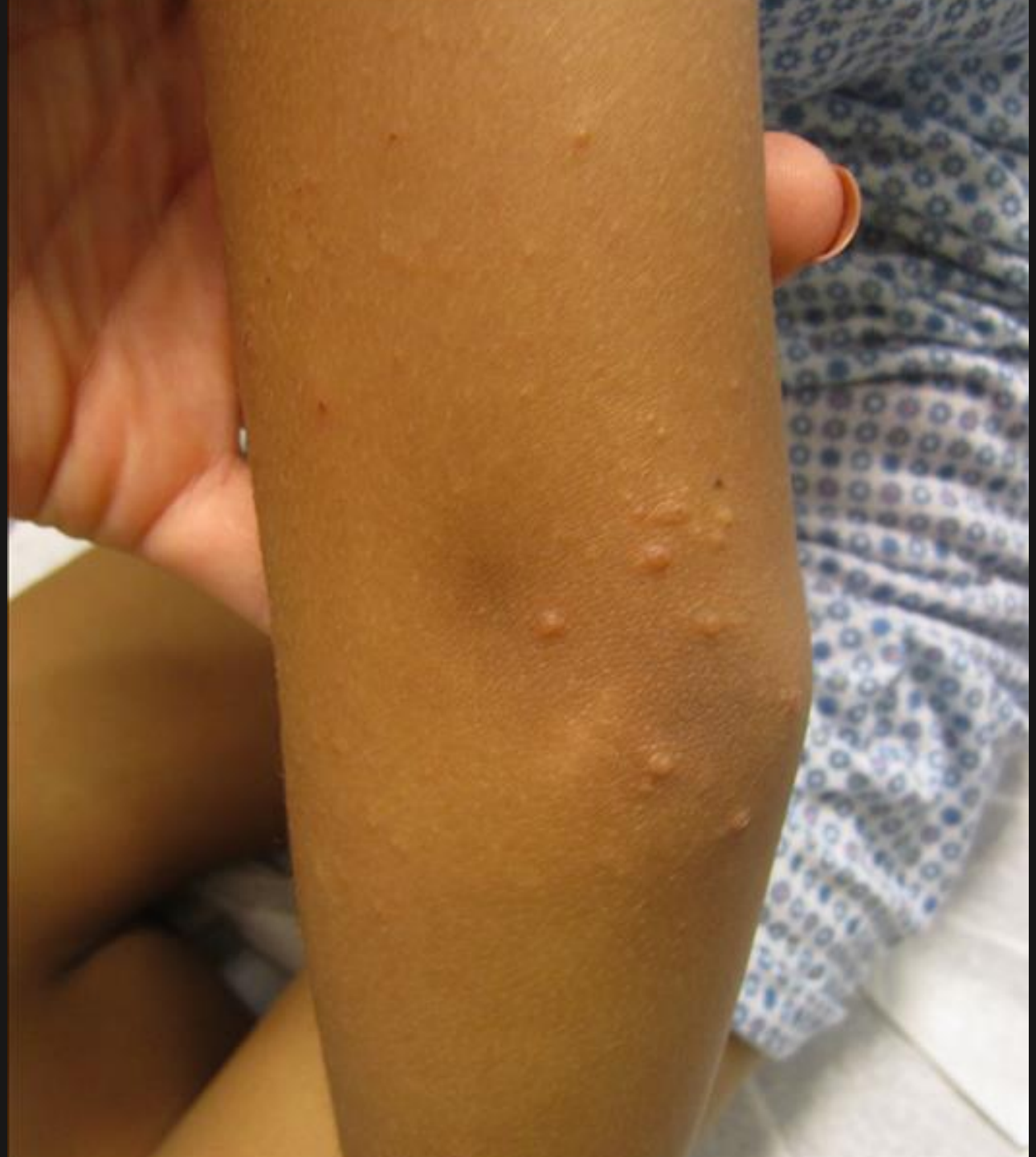


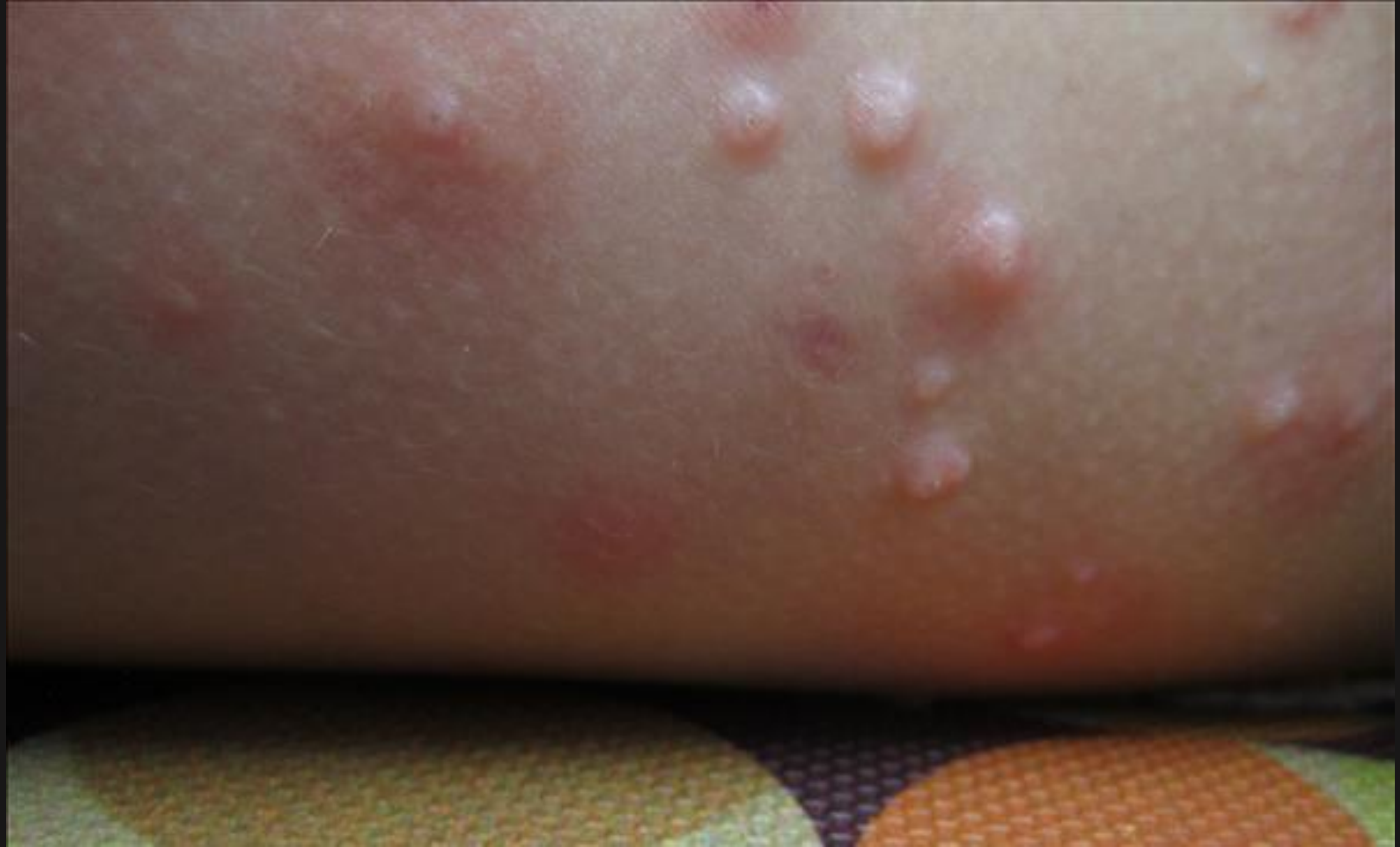


Verruca vulgaris

- Common wart
- Several common subtypes
- Treatment
  - Benign neglect
  - Topical salicylic acid for several months (OTC)
  - Clinic treatments/specialist
    - Cryotherapy
    - Immunotherapy (candida yeast protein injections)
    - Topical imiquimod
    - Topical 5 Fluorouracil (5FU) *off-label*







Molluscum Contagiosum

- Poxvirus family
- Very common, spreads through skin-skin contact
  - Swimming pools, bath tubs
  - Sharing clothes/towels
- Can last few months to few years
- Treatment depends on number present and patient preference
  - Immunotherapy (candida antigen injections)
  - Cryotherapy (if only a few papules)
  - Topical retinoids
  - Benign neglect
  - Curettage*

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Non-Infectious Dermatitis

- Atopic Dermatitis
  - Pityriasis alba
  - Contact Dermatitis
- Seborrheic dermatitis
- Perioral dermatitis

Atopic Dermatitis

- One of most common skin findings in infants and children
- >85% of affected individuals will have it by age 5
- Up to 20% of children in USA
  - Has increased steadily over decades
  - Similar to asthma
- Children with AD are more at risk for:
  - Asthma
  - Seasonal Allergies
  - Food Allergies

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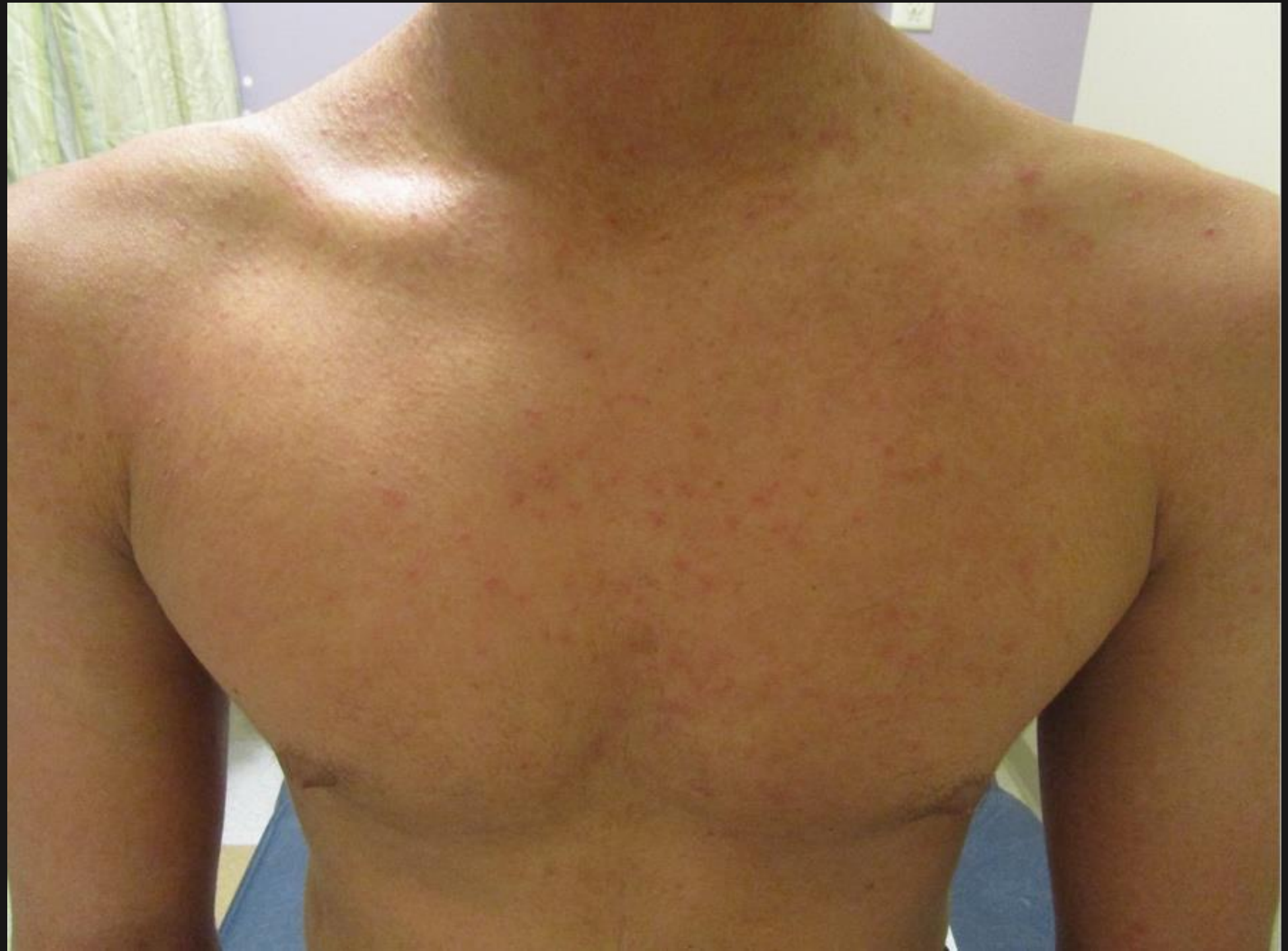
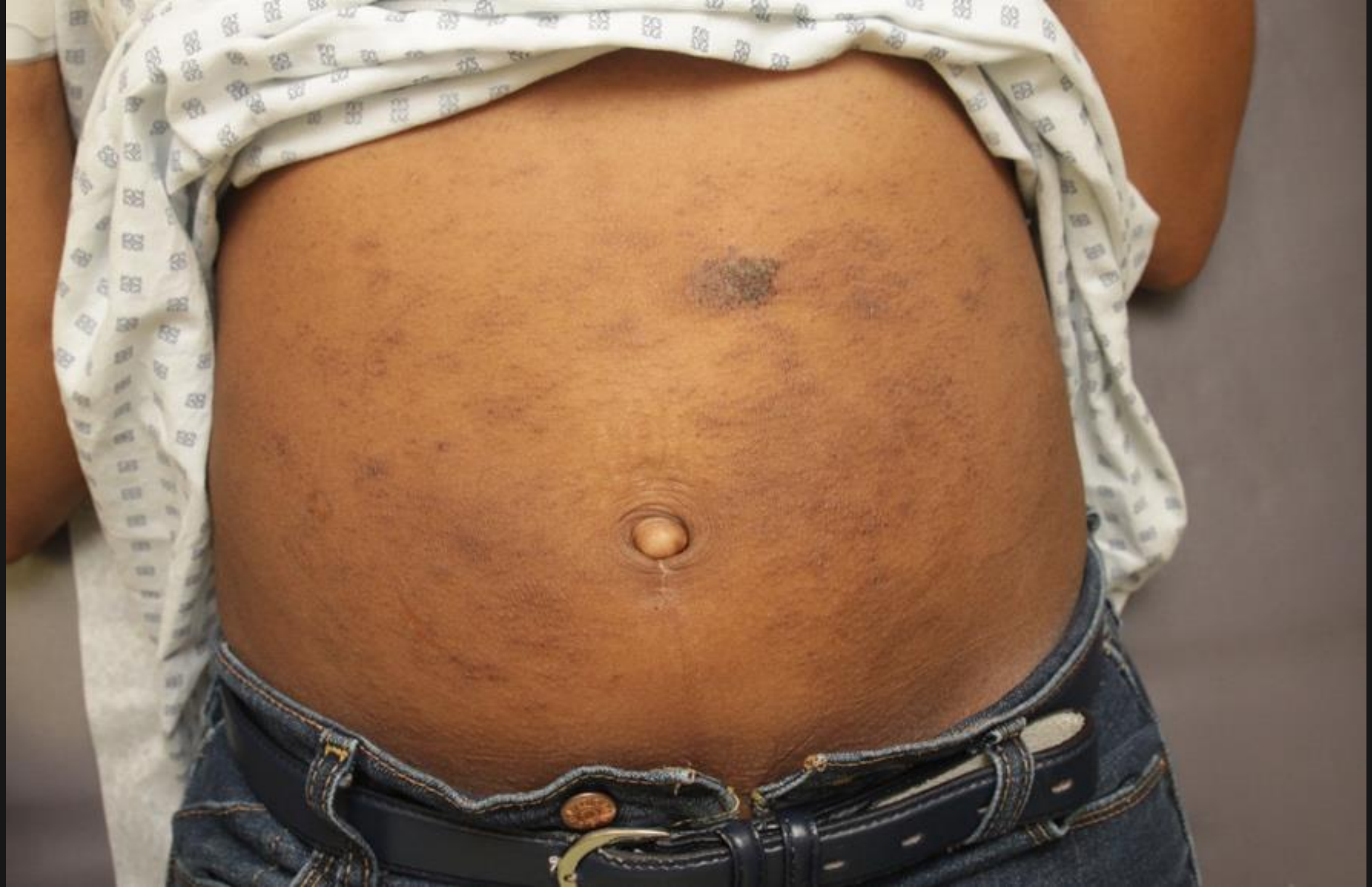
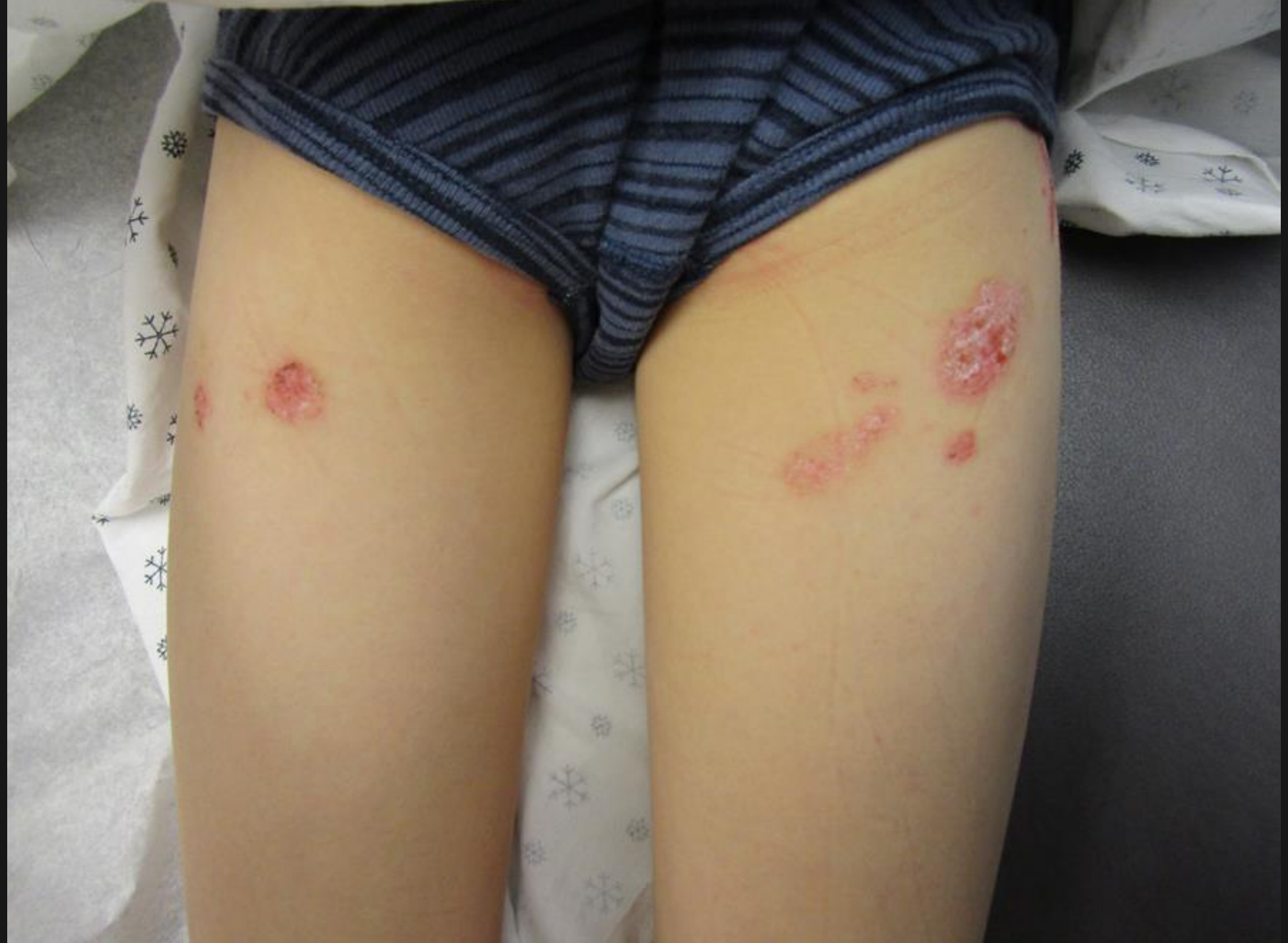
Atopic Dermatitis

- Clinical features
  - Xerosis
  - Very pruritic
  - Excoriations
  - Lichenification







Restoring and Maintaining Skin Barrier

Moisturize!

- Ointments or creams are best
- Twice daily
- Fragrance-free

Baths/Showers

- Daily to every other day
- Less than 10 minutes
- Moisturize within 3 minutes of bath

Soap

- If needed, fragrance-free

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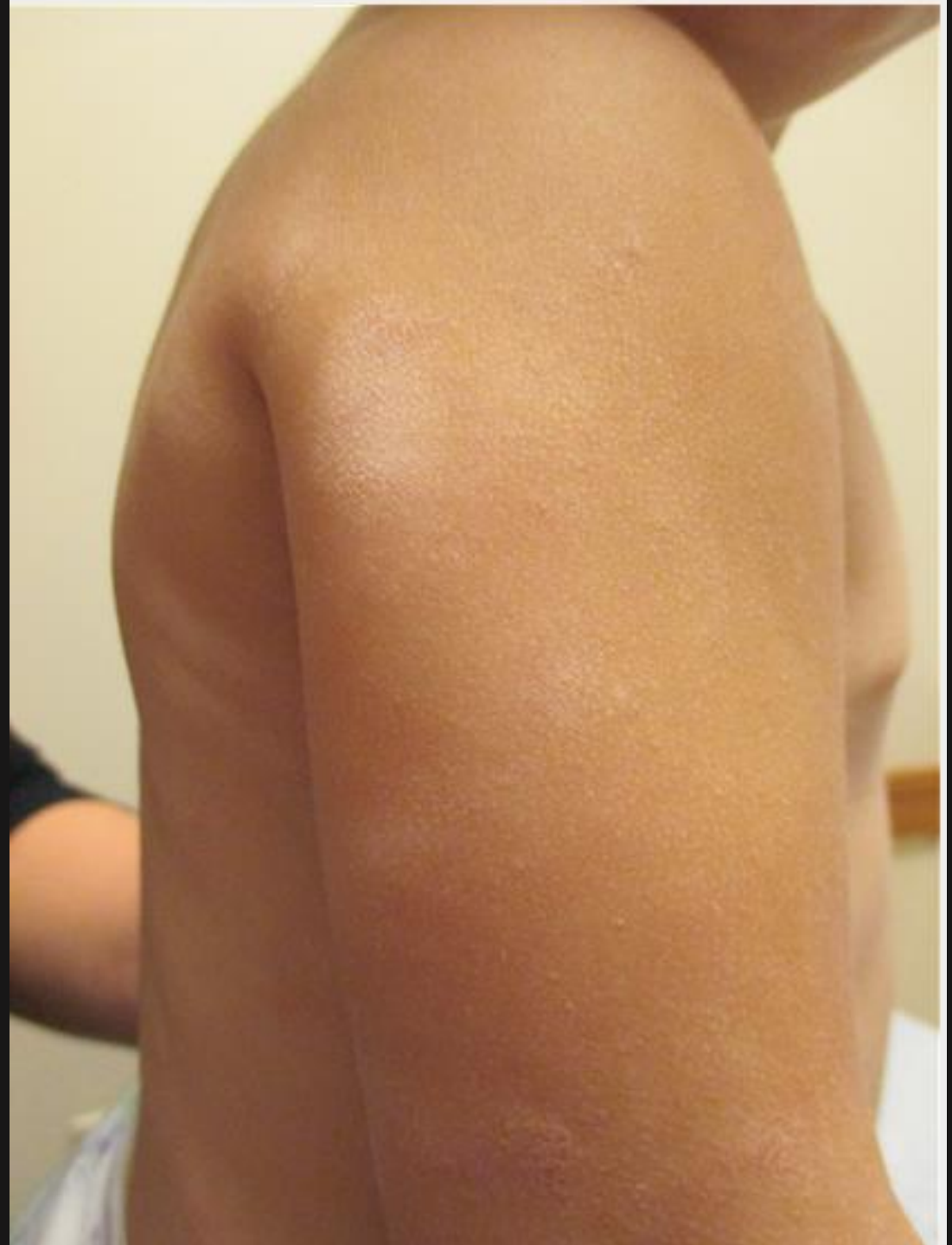
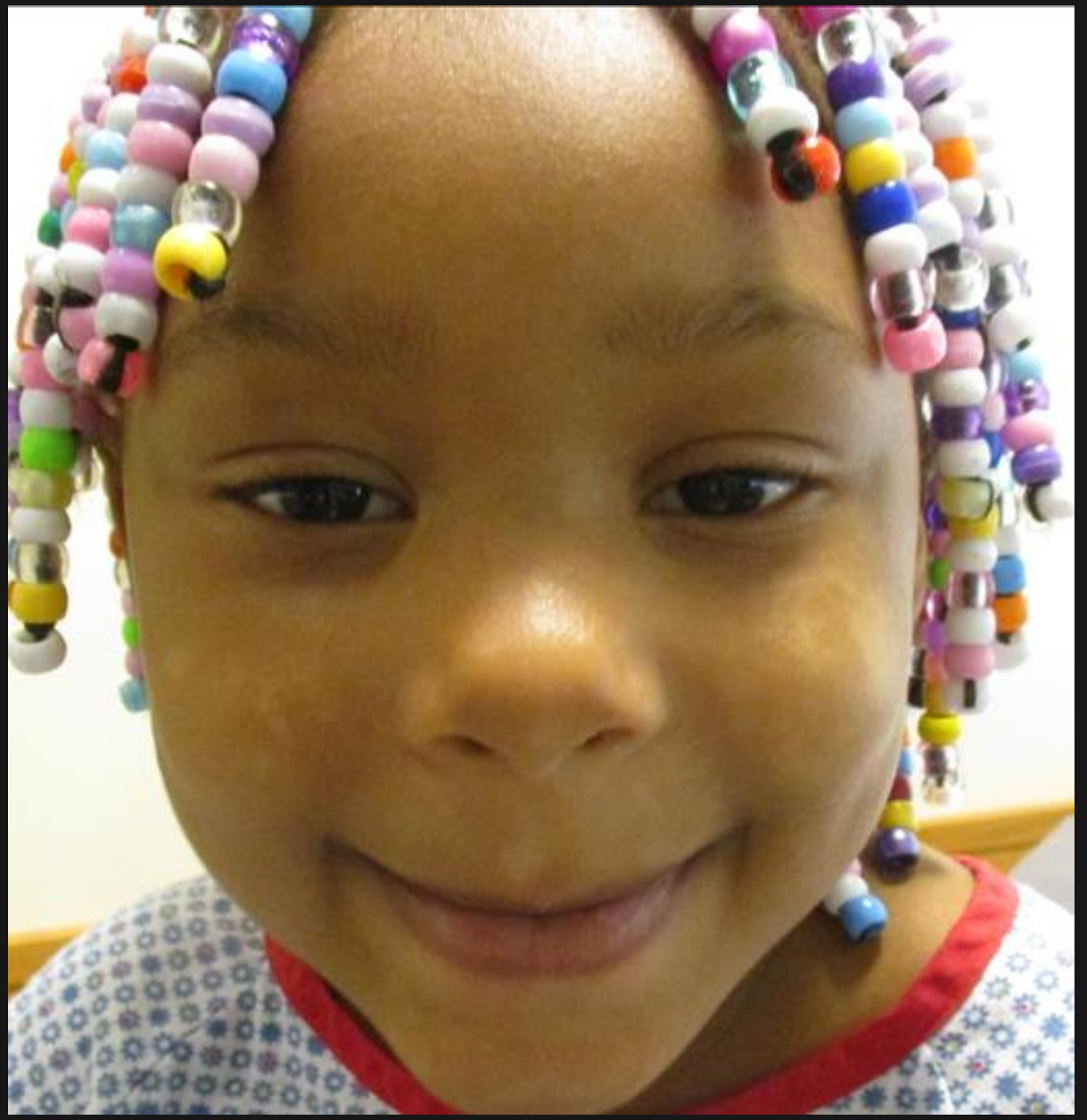
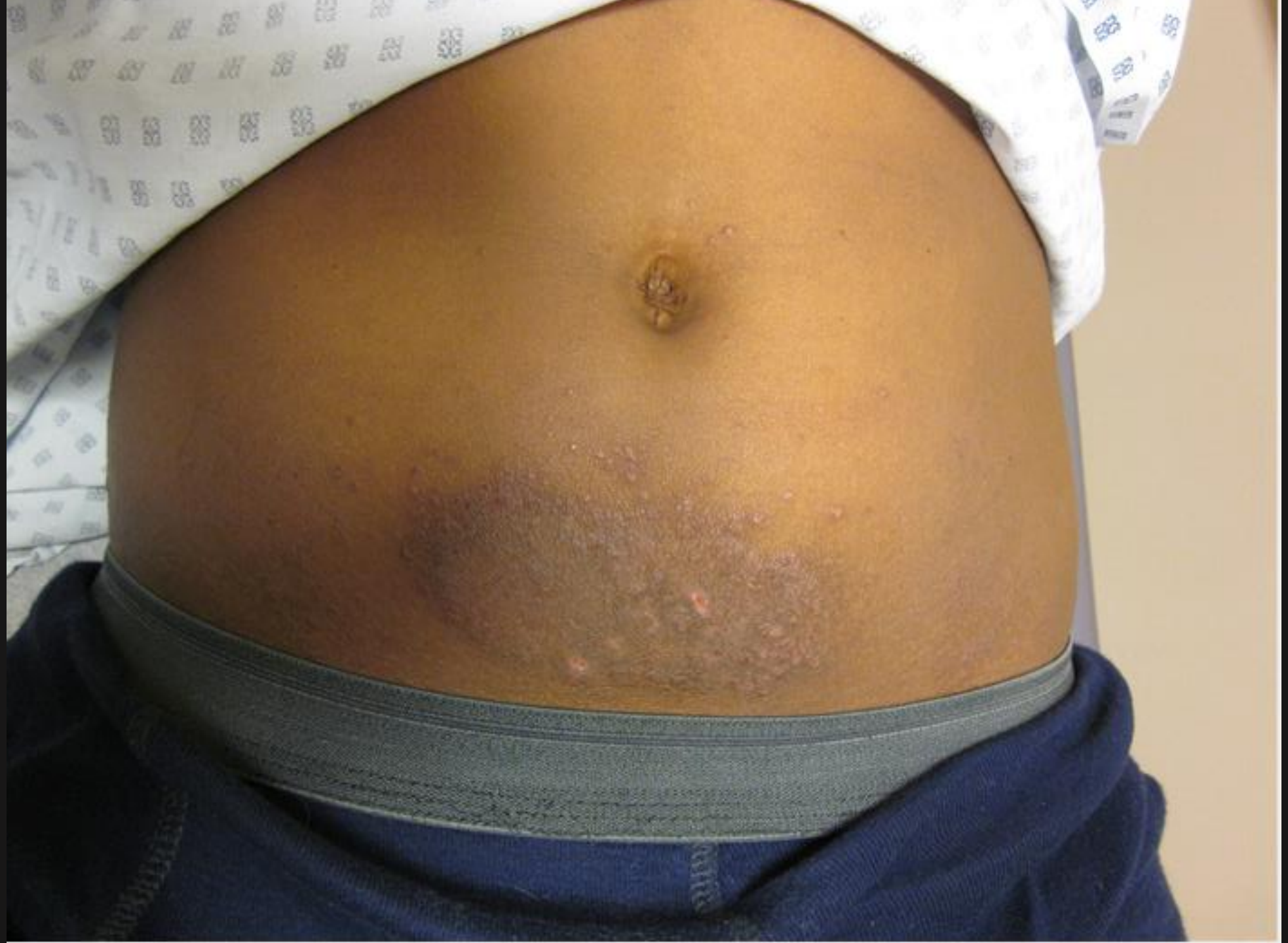


Pityriasis Alba

- Mild dermatitis
  - With non-specific post-inflammatory hypopigmentation
  - Often asymptomatic
  - Often seen in patients with AD
  - Typically most noticeable after sun exposure (summer/early fall)
- Treatment
  - Moisturizer
  - Sun protection to prevent
  - Topical steroids for 2 to 3 weeks (low-potency)
  - Calcineurin inhibitors



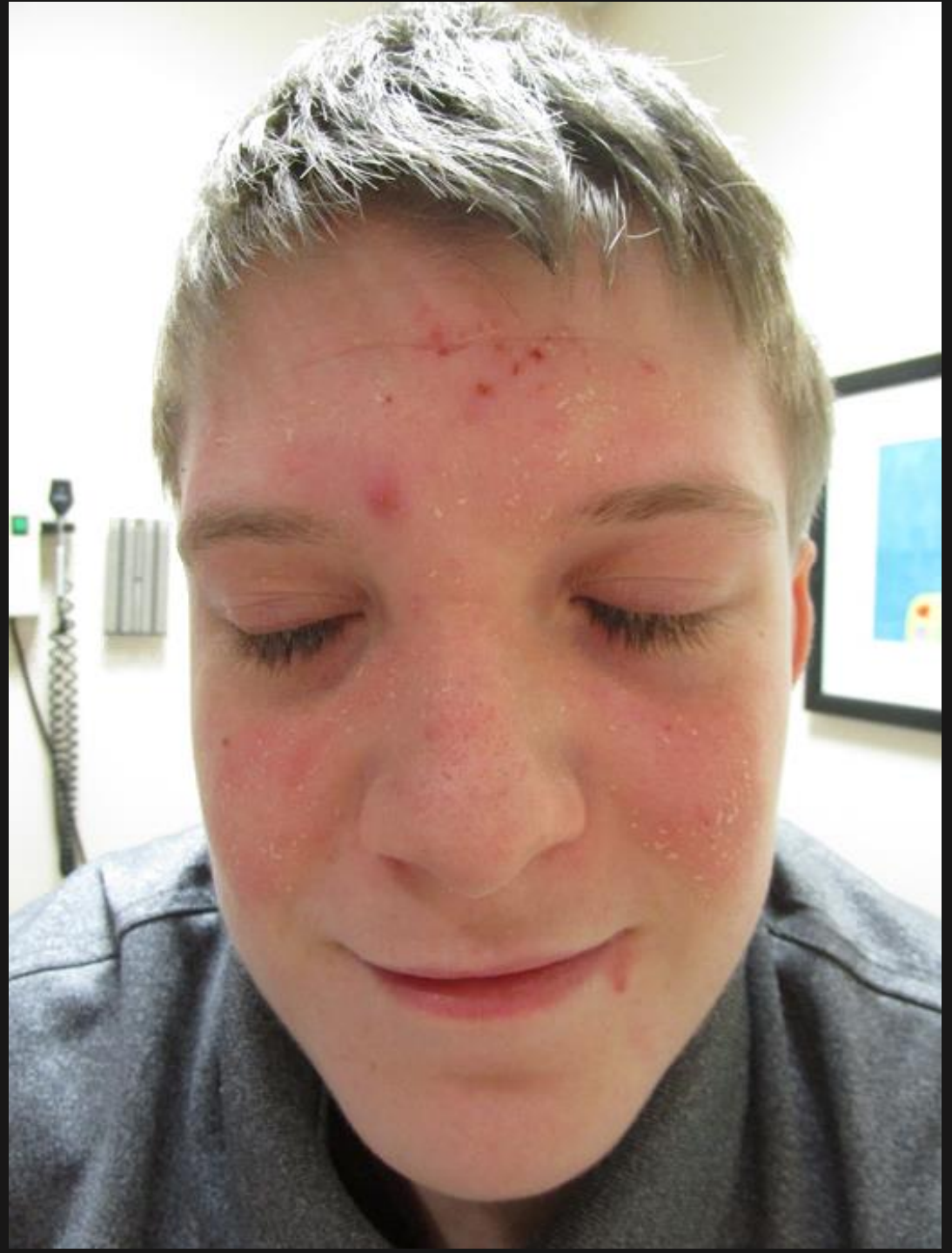


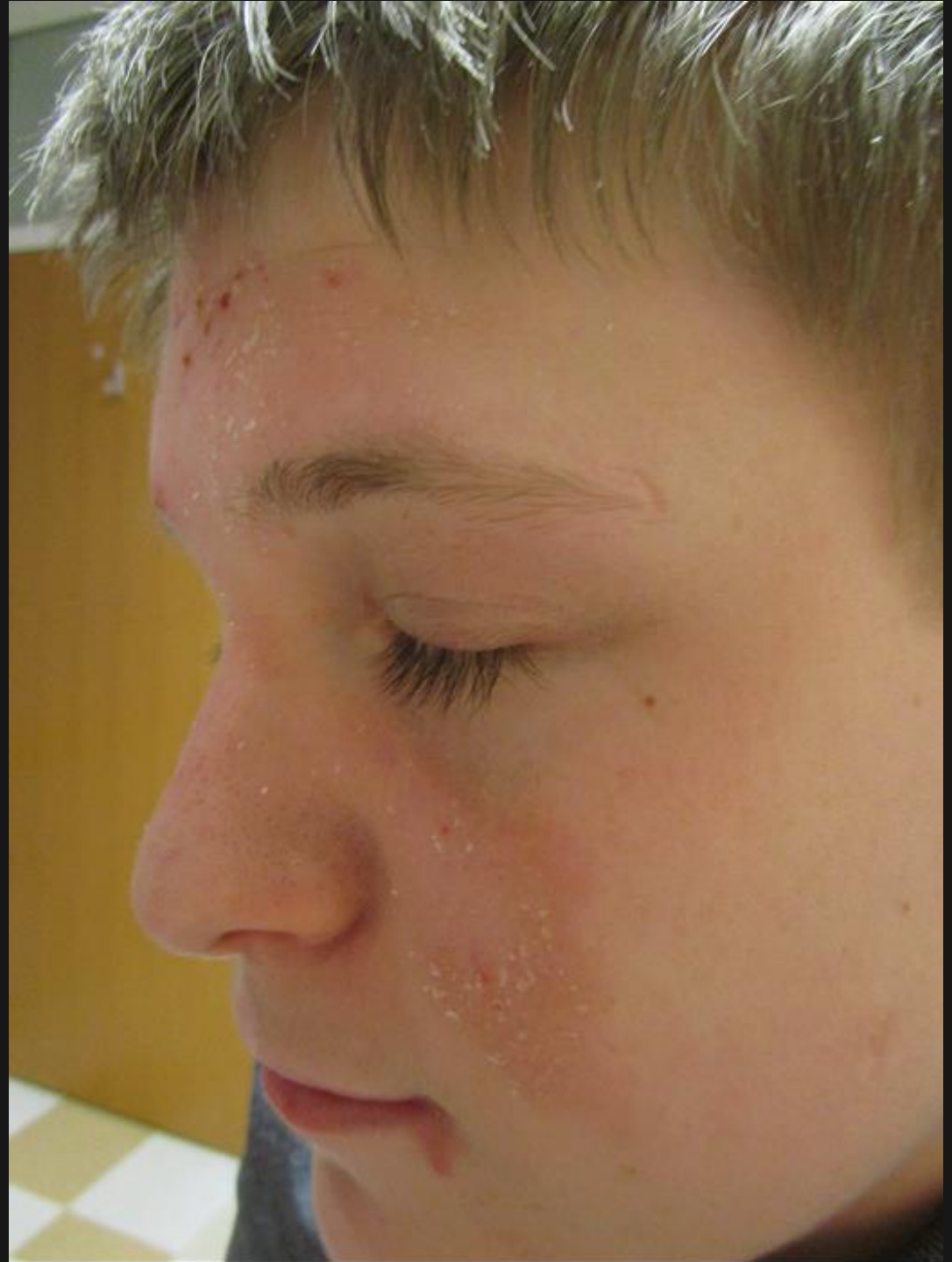
Contact dermatitis

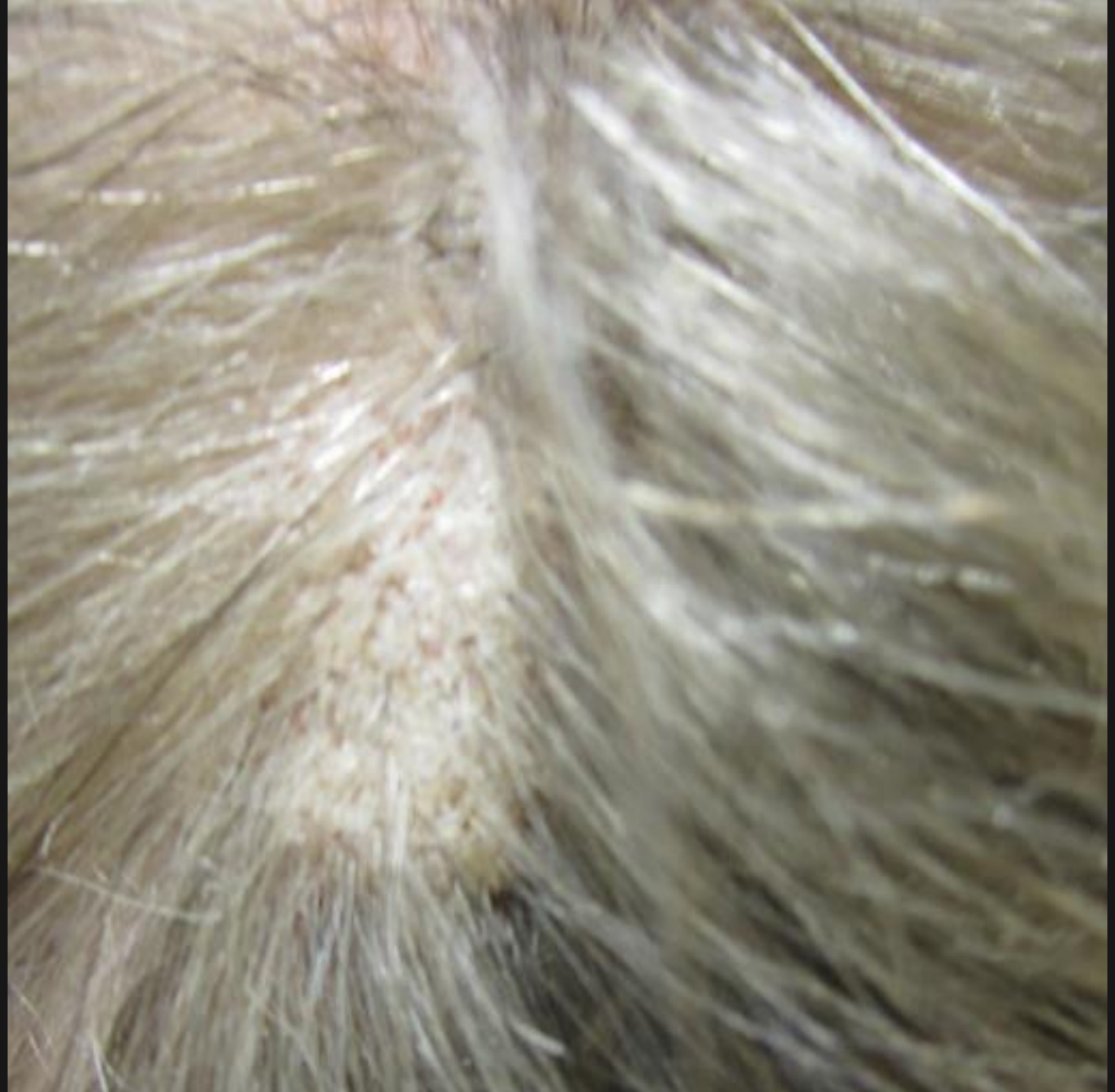
- Irritant (think caustic soaps, hand sanitizers)
- Allergic
  - Many causes
  - Look for patterns on the skin that may clue you in to product or potential cause

Common Allergens

- Nickel
- Topical antibiotics
  - Neomycin
- Propylene glycol
- Cocamidopropyl betaine
- Lanolin
- Benzalkonium choloride
- Fragrance and Balsam of Peru
- Methylchlorisothiazolinone (MCI)/methylisothiazolinone (MI)







Seborrheic Dermatitis

- Related to sebum-production and commensal yeast *Malassezia*
- Clinical features
  - Occurs in sebum-rich areas
    - Scalp
    - Face (forehead, eyebrows, upper eyelids, nasolabial and melolabial folds)
    - Neck and central chest
    - Intertriginous areas (retroauricular creases, under breasts, groin)
  - Sharply demarcated, greasy, pink-yellow to red-brown patches/plaques with bran-like scale
  - Chronic, relapsing course

Seborrheic Dermatitis

- Treatment depends a bit on age and whether you see inflammation (erythema)
- Scale
  - Antifungal agents, anti-dandruff shampoo
  - Ketoconazole 2% shampoo (prescription)
- Erythema
  - Topical steroids, low potency
  - Calcineurin inhibitors (non-steroid prescription)

Treatment

Infants

- Body
  - Low-potency topical steroids
  - Emollients
- Scalp
  - Oil-based products to reduce/remove scale
  - Fluocinolone oil – low potency topical steroid

Children/Teens

- Body
  - Topical steroids/ CI
  - Emollients
- Face
  - Topical steroids (if inflamed)
  - Topical antifungals (if scaly)
- Scalp
  - Topical steroids
  - Antifungal shampoo
  - Antidandruff shampoo

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Perioral Dermatitis (Periorificial Dermatitis)

- An inflammatory condition on the face
- Usually made worse with fluorinated topical steroids or fluoride toothpaste
- Spares vermilion border
- Can involve perinasal and periocular skin
- +/- pruritic

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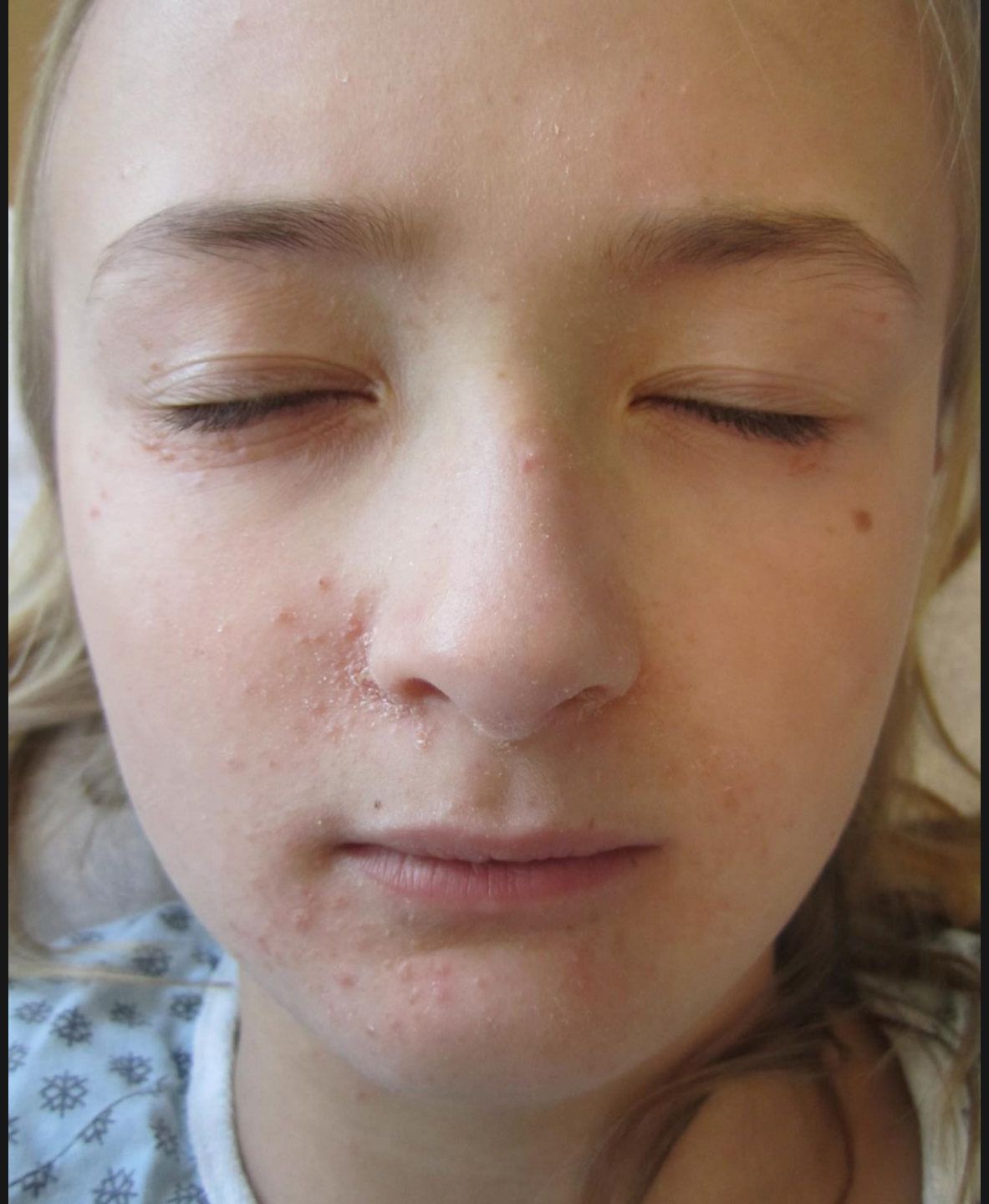

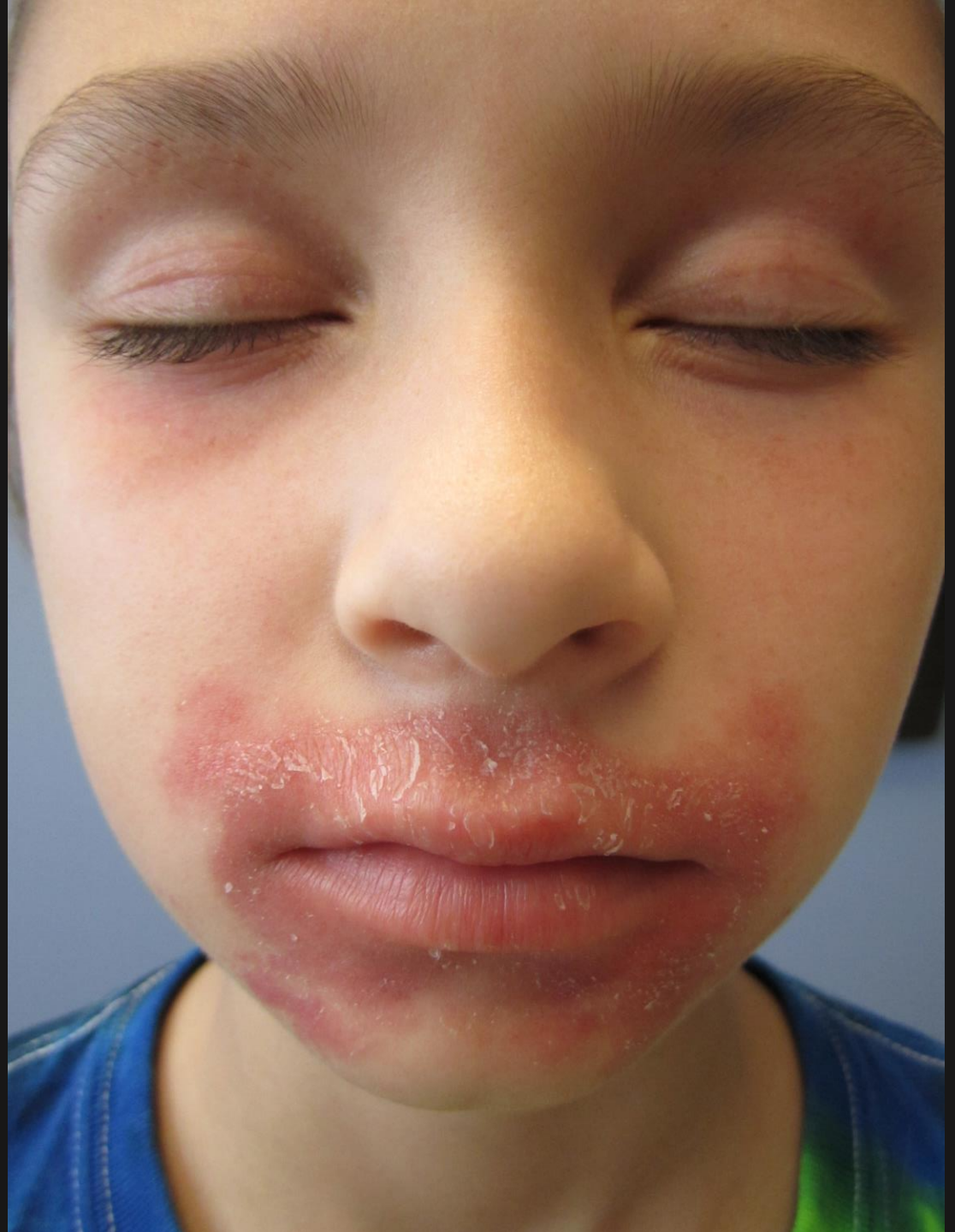

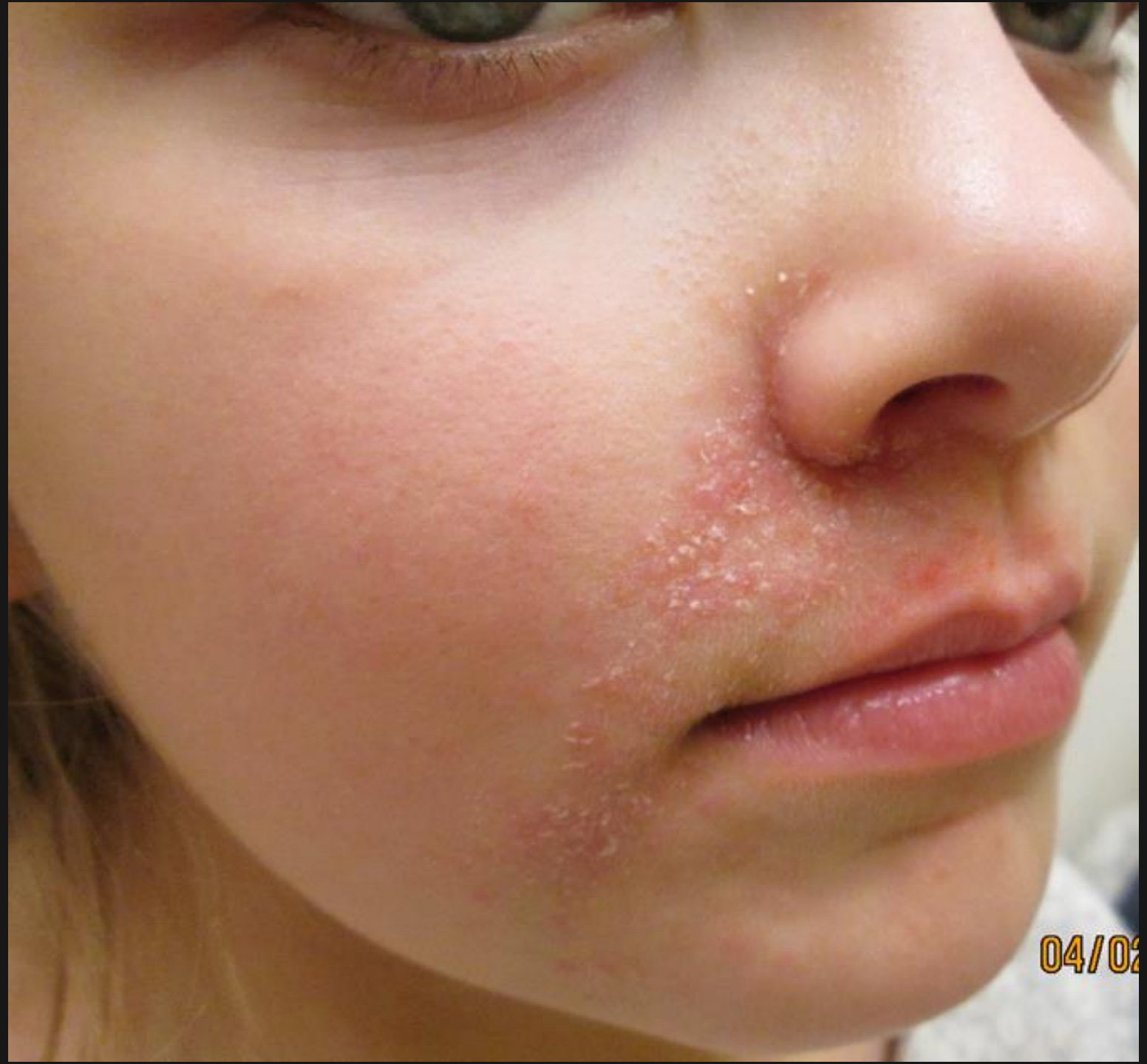
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Perioral Dermatitis Treatment

- Remove offending agents
  - Ointment-based products
  - Fluoride toothpaste (if possible)
- Gentle, fragrance-free moisturizer lotion or cream
  - Unlike Atopic Dermatitis, avoid ointment!

Perioral Dermatitis Treatment

Topical

- Metronidazole 0.75% cream or gel
- Erythromycin 2% gel
- Calcineurin inhibitors
- Avoid steroids!

Oral

- For severe cases
- Erythromycin (expensive, hard to find)
- Doxycycline (>8 years old)

Objectives

- Identify common dermatologic conditions in wrestlers and other athletes
  - Infectious
  - Non-infectious
- Review over the counter treatment options
- Discuss when to refer to dermatology

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Questions

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