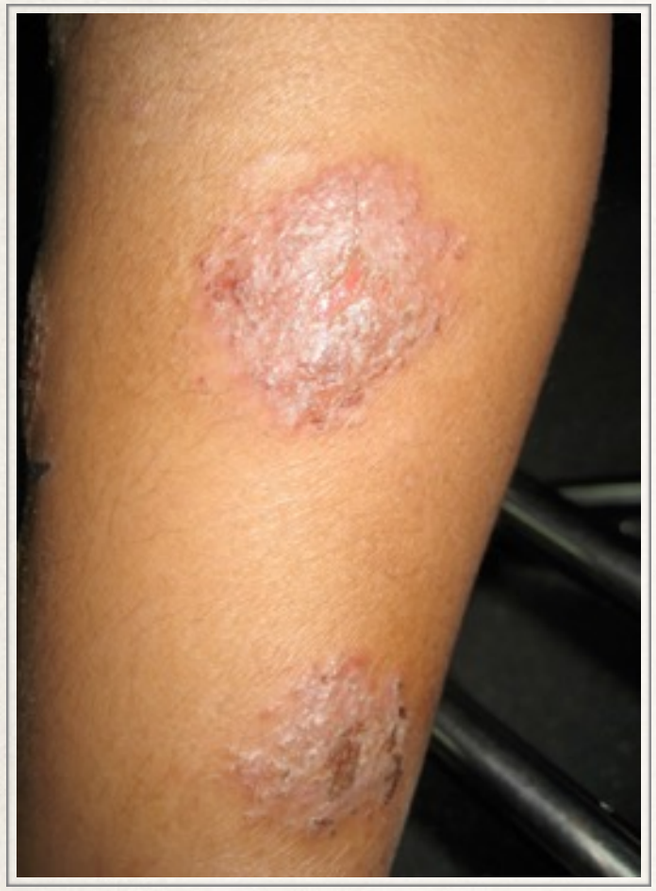
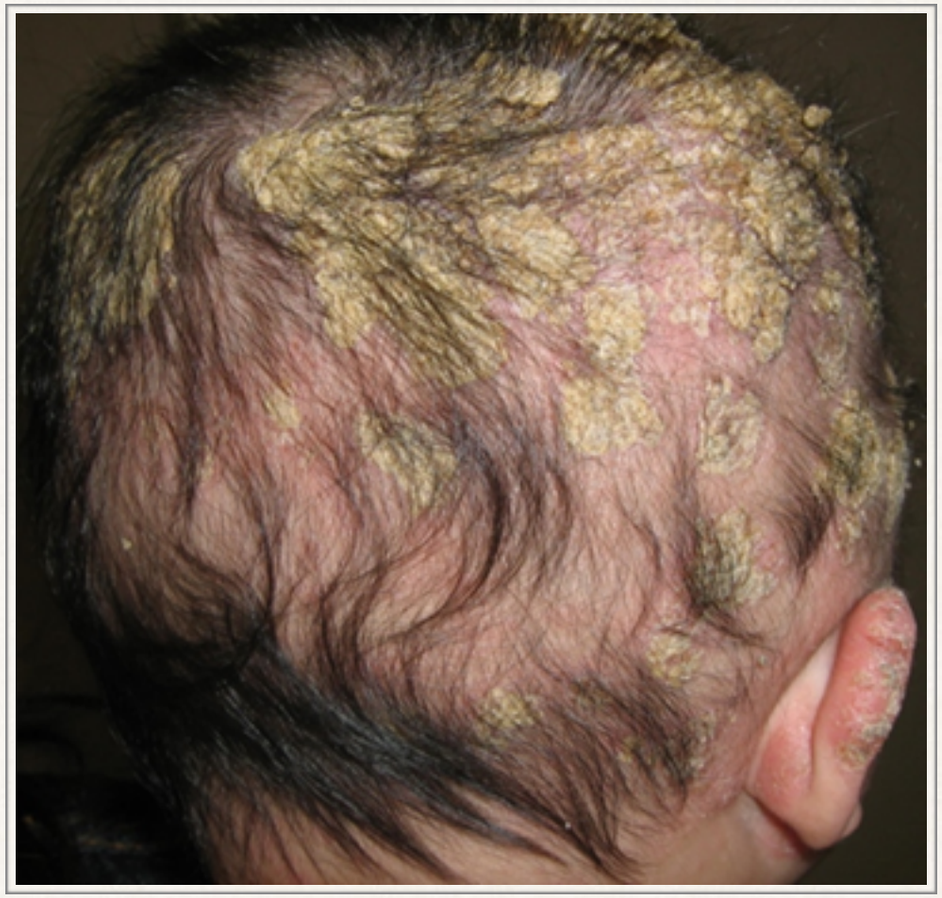
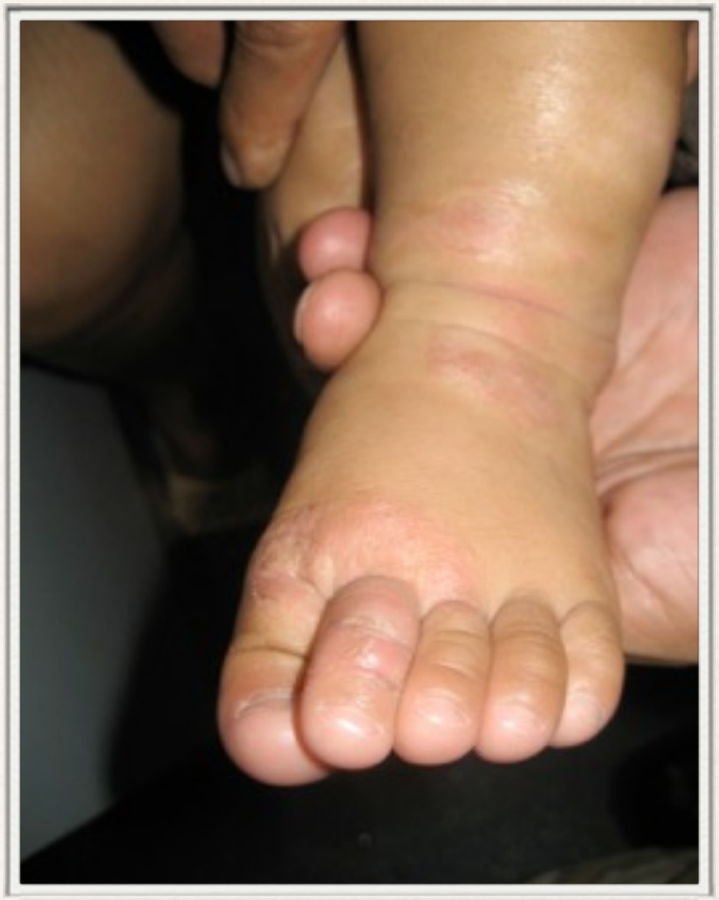






Common Eczema in Children

รองศาสตราจารย์ แพทย์หญิง ลีลาวดี เตชาเสถียร

Dermatology Division, Pediatric Department

Faculty of Medicine, Khon Kaen University

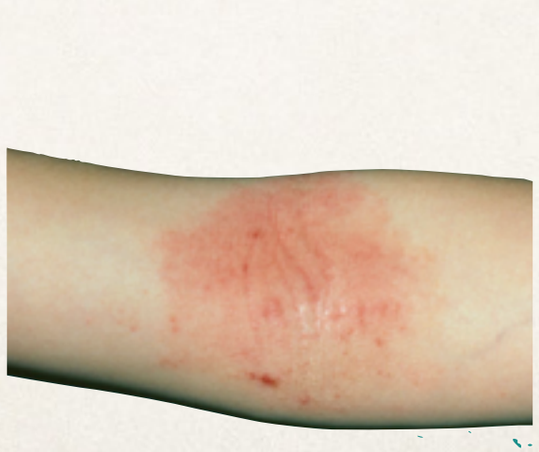
Instruction for online lecture

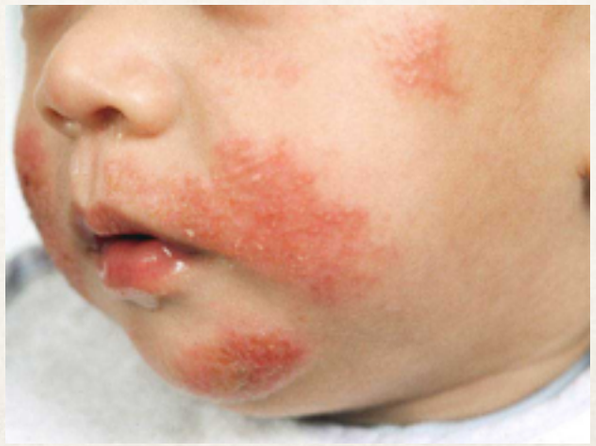
1. **Online lecture (duration 40-45 นาที)**
2. **Post-test**
   - ✦ Log in to E-learning KKU รายวิชากุมารเวชศาสตร์ 1
   - ✦ เลือกหัวข้อ Dermatology
   - ✦ ระบบจะเปิดให้ทำ Quiz **<u>วันเดียวกันกับตารางเรียน เวลา 15.00-15.30</u>** นะคะ
   - ✦ Submit คำตอบภายในเวลาที่กำหนด
   - ✦ ข้อสอบ 10 ข้อ เวลาในการทำข้อสอบ 5 นาที

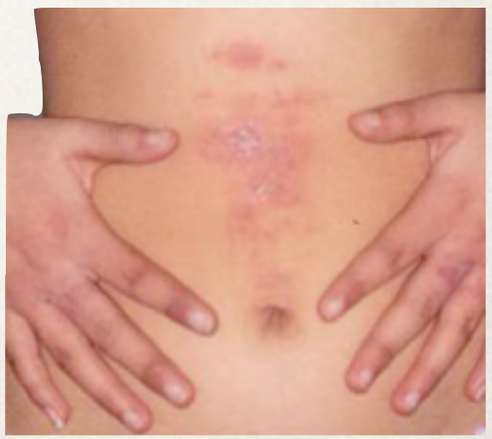
อย่าลืม submit คำตอบภายในเวลาที่กำหนดนะคะ

Objective

- Definition and stages of eczema
- Classification and types of eczema
- Be able to diagnose common eczema in children
- Be able to treat common eczema in children

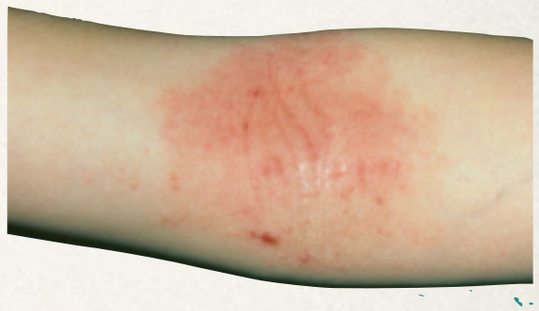


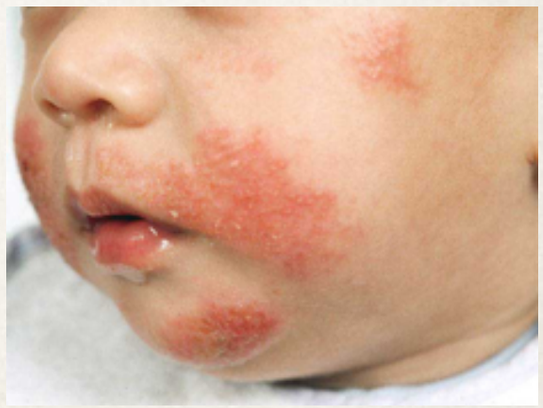




Definition of Eczema

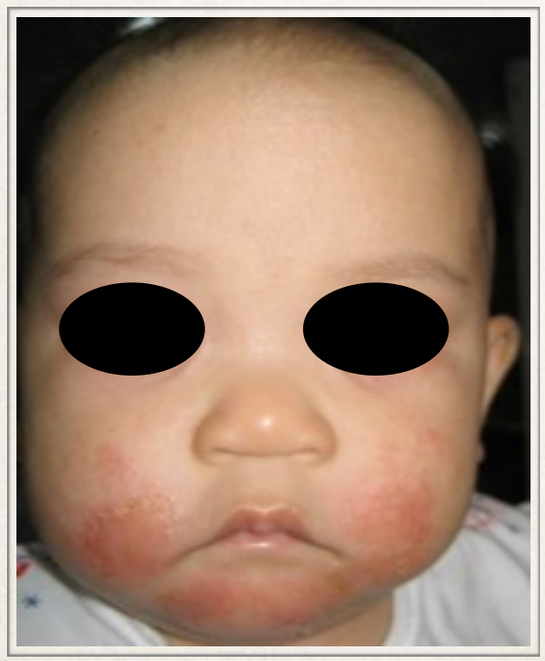
- Also called “dermatitis” --- Inflammation of the skin
- Commonly presented with
  - Pruritus
  - Serous discharge
  - Scale and crust
  - Lichenification

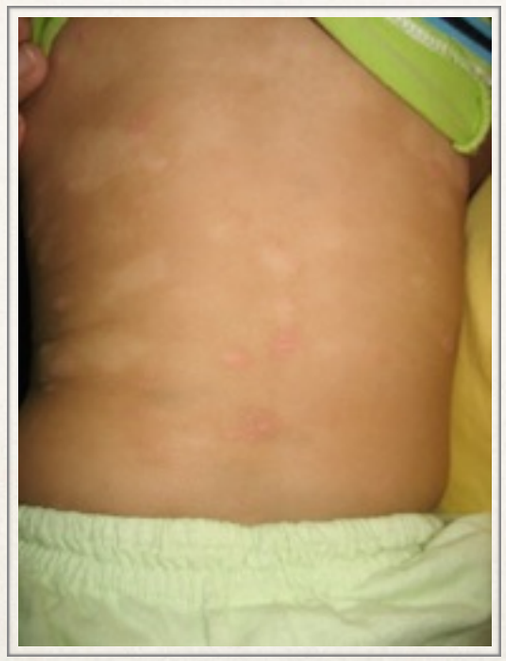


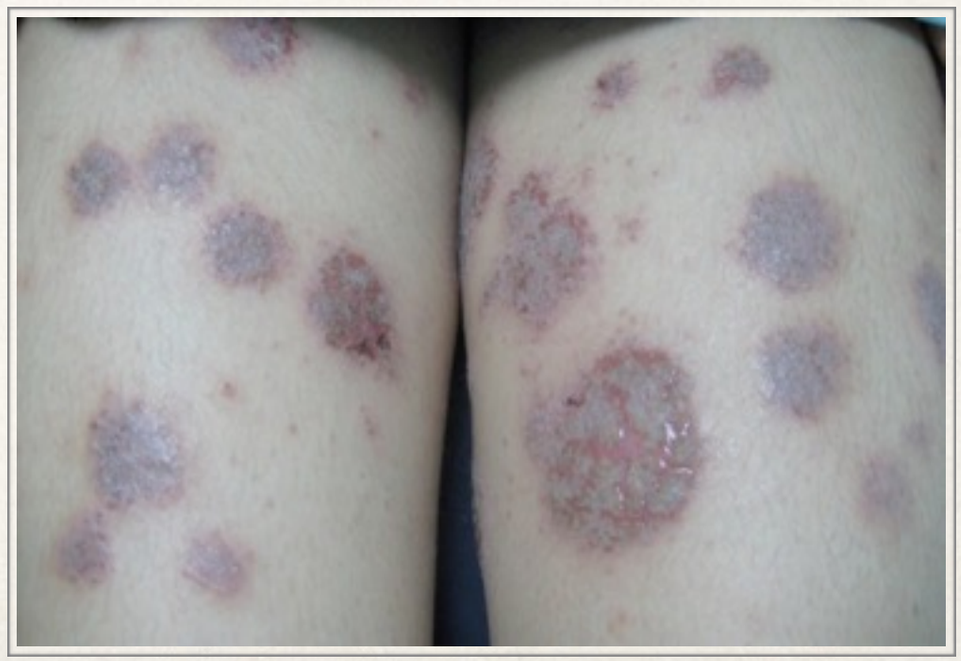


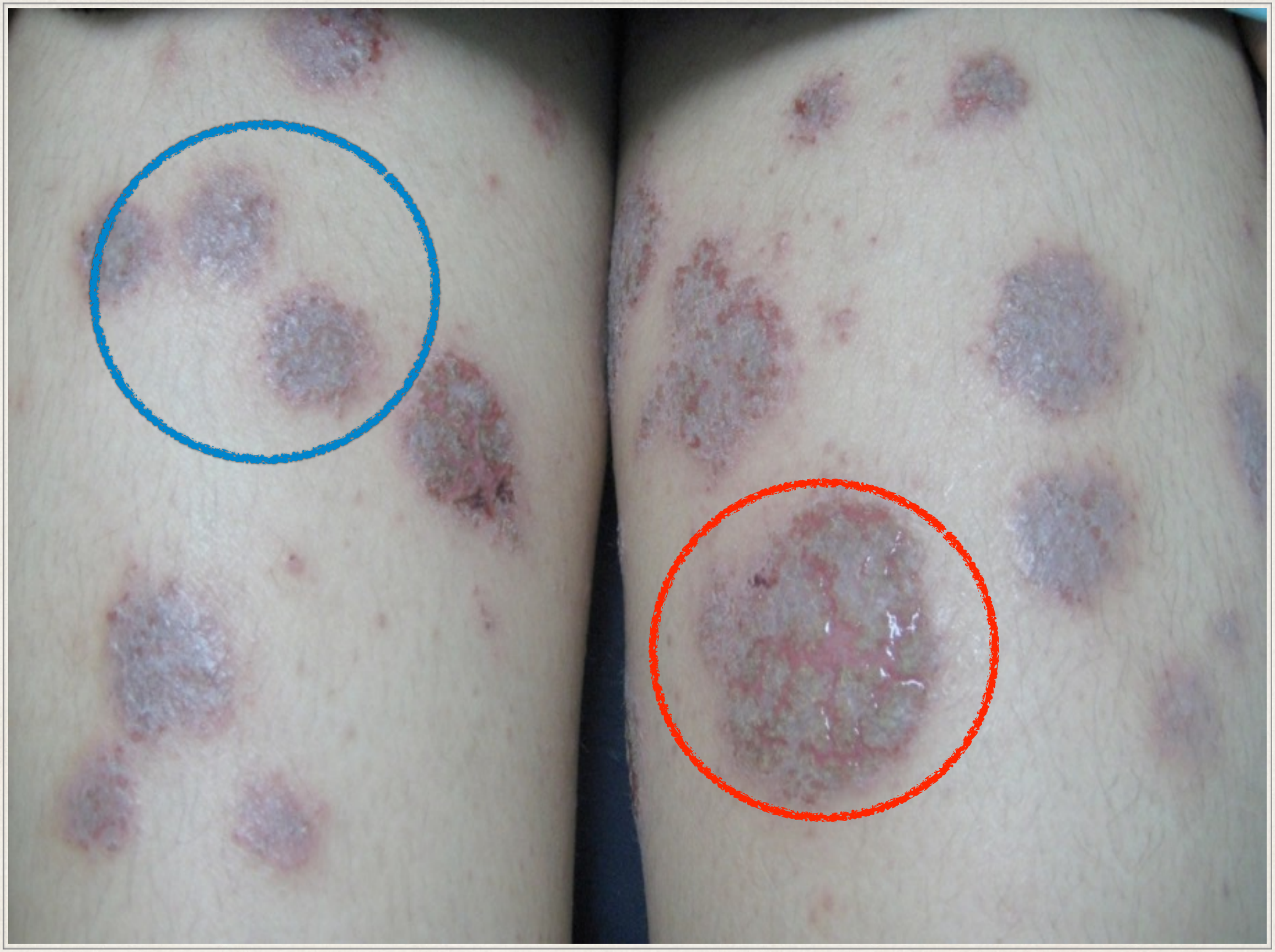
Stages of Eczema

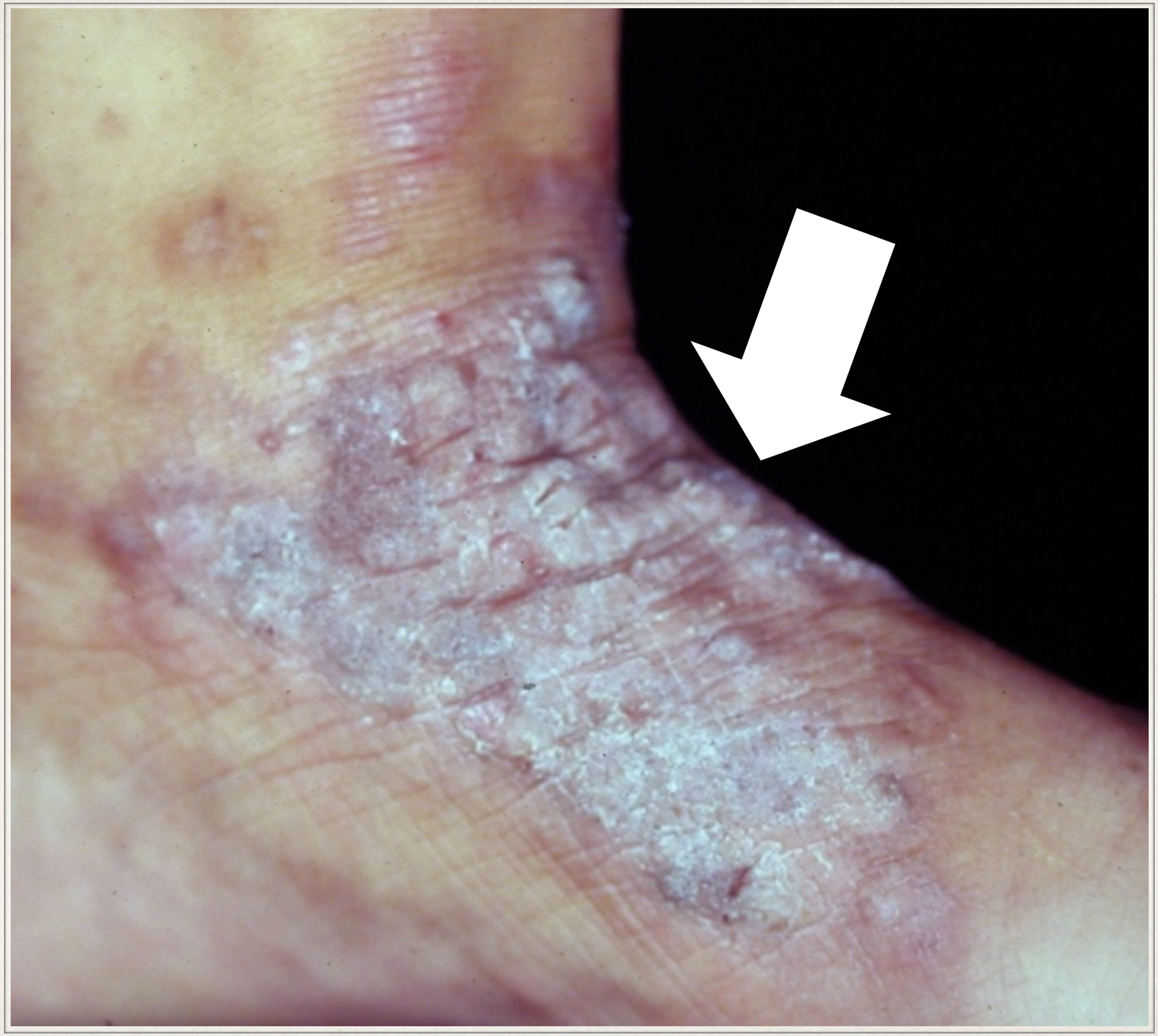
- Acute : weeping, serous discharge
- Subacute : scale, crust
- Chronic : lichenification











Classification of eczema

Causes

Exogenous
Known causes

- Contact dermatitis
  - Allergic
  - Irritant

Endogenous
Unknown causes

- Atopic dermatitis
- Nummular eczema
- Dyshidrosis
- Pityriasis alba

Treatment of eczema

Inflammation of the skin ---> Use anti-inflammatory agent

- Topical -- Corticosteroids, Calcinurin inhibitors
- Systemic -- Corticosteroids, Immunosuppressive agents (severe cases)

Topical Corticosteroids

Variety of Potency

GENERIC NAME	EXAMPLES OF BRANDED PRODUCTS
CLASS 1—SUPER POTENT	
0.05% clobetasol propionate	Clobex® Lotion/Spray/Shampoo, Olux®E Foam, Temovate E® Emollient/ Cream/Ointment Gel/Scalp
0.05% halobetasol propionate	Ultravate® Cream
0.1% fluocinonide	Vanos® Cream
CLASS 2—POTENT	
0.05% diflorasone diacetate	ApexiCon® E Cream
0.1% mometasone furoate	Elocon® Ointment
0.1% halcinonide	Halog® Ointment
0.25% desoximetasone	Topicort® Cream/Ointment
CLASS 3—UPPER MID-STRENGTH	
0.05% fluocinonide	Lidex-E® Cream
0.05% desoximetasone	Topicort® LP Cream
CLASS 4—MID-STRENGTH	
0.1% clocortolone pivalate	Cloderm® Cream
0.1% mometasone furoate	Elocon® Cream
0.1% triamcinolone acetonide	Aristocort® A Cream, Kenalog® Ointment
0.1% betamethasone valerate	Valisone Ointment
0.025% fluocinolone acetonide	Synalar® Ointment
CLASS 5—LOWER MID-STRENGTH	
0.05% fluticasone propionate	Cutivate® Cream/Cutivate Lotion
0.1% prednicarbate	Dermatop® Cream
0.1% hydrocortisone probutate	Pandel® Cream
0.1% triamcinolone acetonide	Aristocort® A Cream, Kenalog® Lotion
0.025% fluocinolone acetonide	Synalar® Cream
CLASS 6—MILD	
0.05% alclometasone dipropionate	Aclovate® Cream/Ointment
0.05% desonide	Verdeso™ Foam, Desonate Gel™
0.025% triamcinolone acetonide	Aristocort A Cream, Kenalog Lotion
0.1% hydrocortisone butyrate	Locoid Cream/Ointment
0.01% fluocinolone acetonide	Derma-Smoothe/FS® Scalp Oil, Synalar® Topical Solution
CLASS 7—LEAST POTENT	
2%/2.5% hydrocortisone	Nutracort® Lotion, Synacort® Cream
0.5- 1% hydrocortisone	Cortaid® Cream/Spray/Ointment and many other over-the-counter products

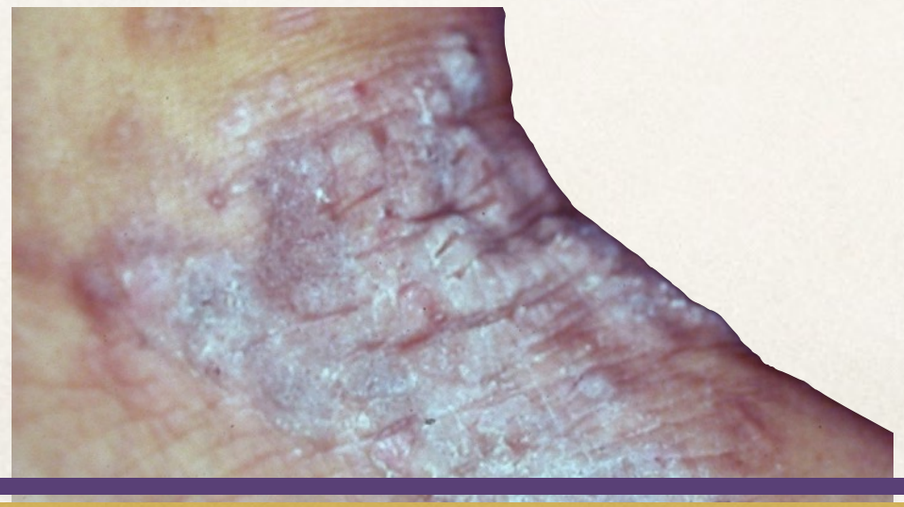
Treatment of eczema

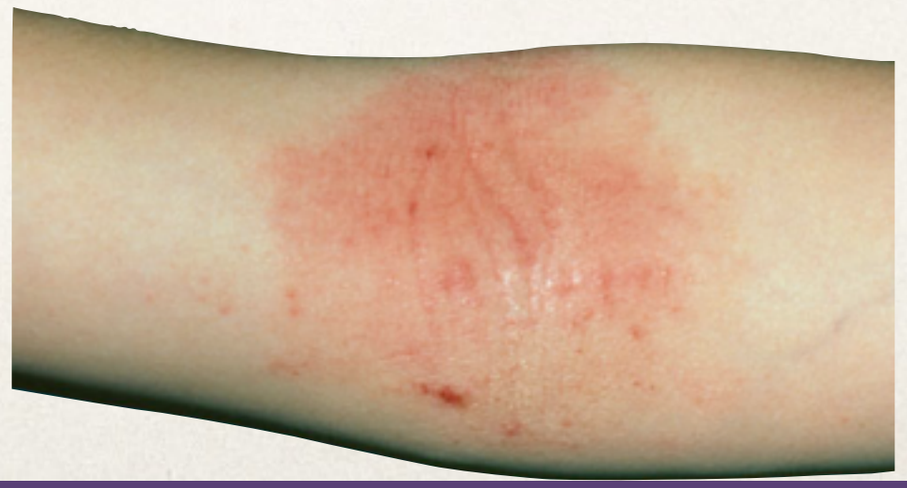
<u>Always Considered stage and site of eczema</u>

- Acute Stage; Use Wet dressing, wet wrap first before applying topical corticosteroids

- More potency --> thick and lichenified area
- Less potency --> thin/ highly absorbed area

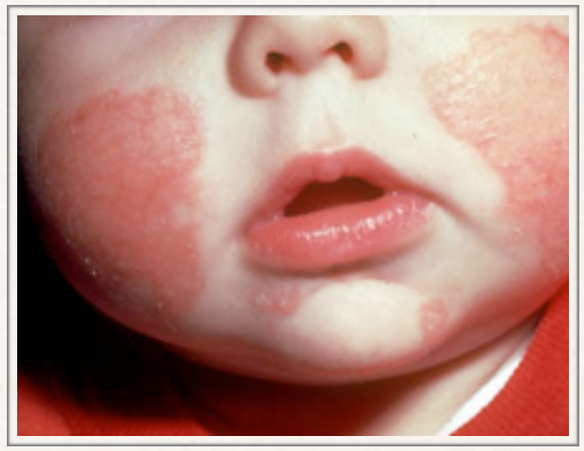
- Children; Body surface area(BSA)

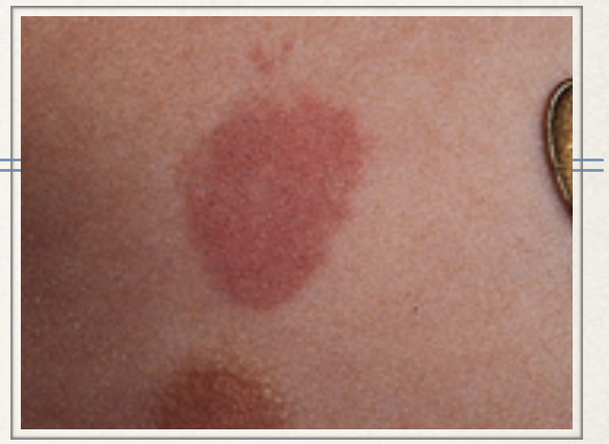


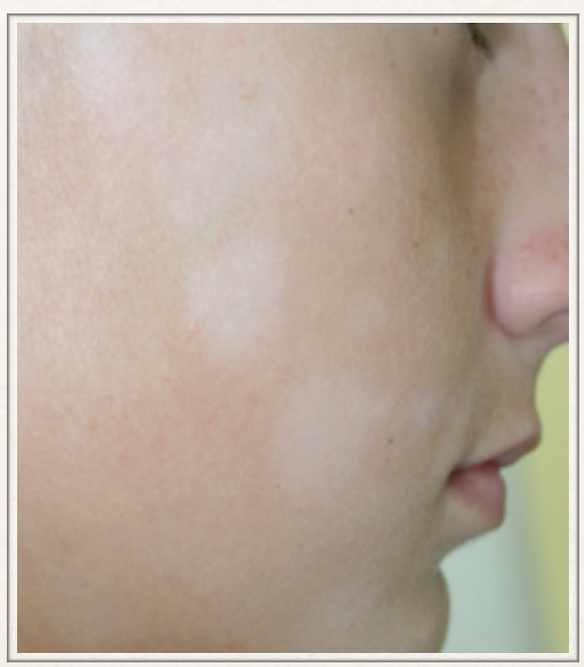


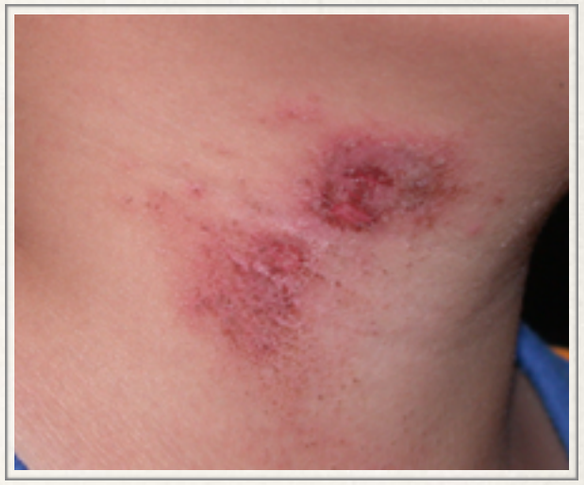
Common eczema in children

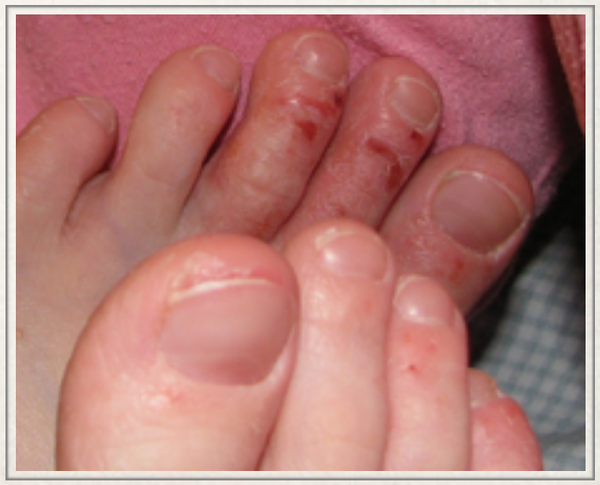
- Atopic dermatitis
- Pityriasis alba
- Seborrheic dermatitis
- Intertrigo
- Dyshidrosis or pompholyx
- Nummular eczema
- Diaper dermatitis
- Contact dermatitis

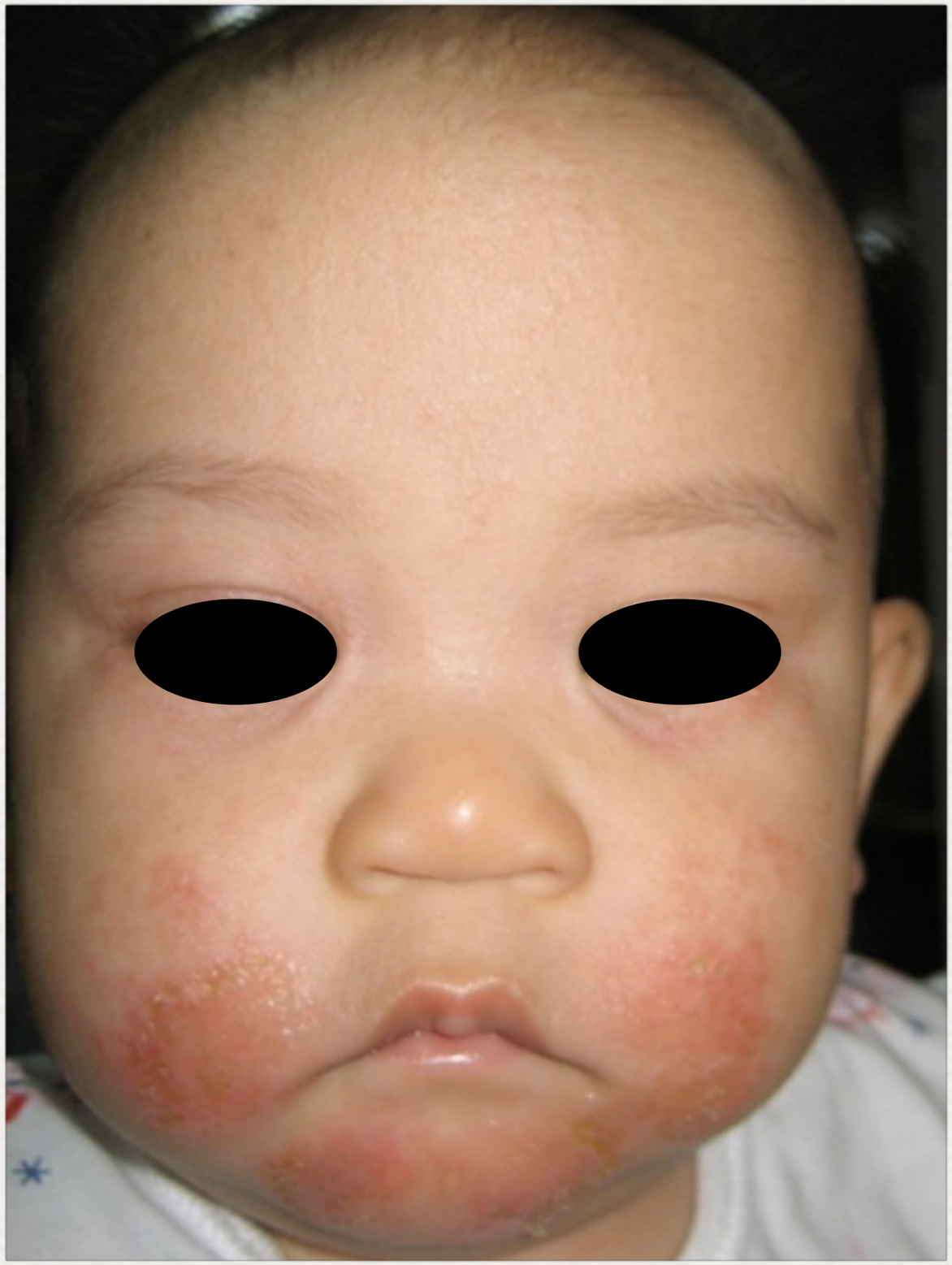


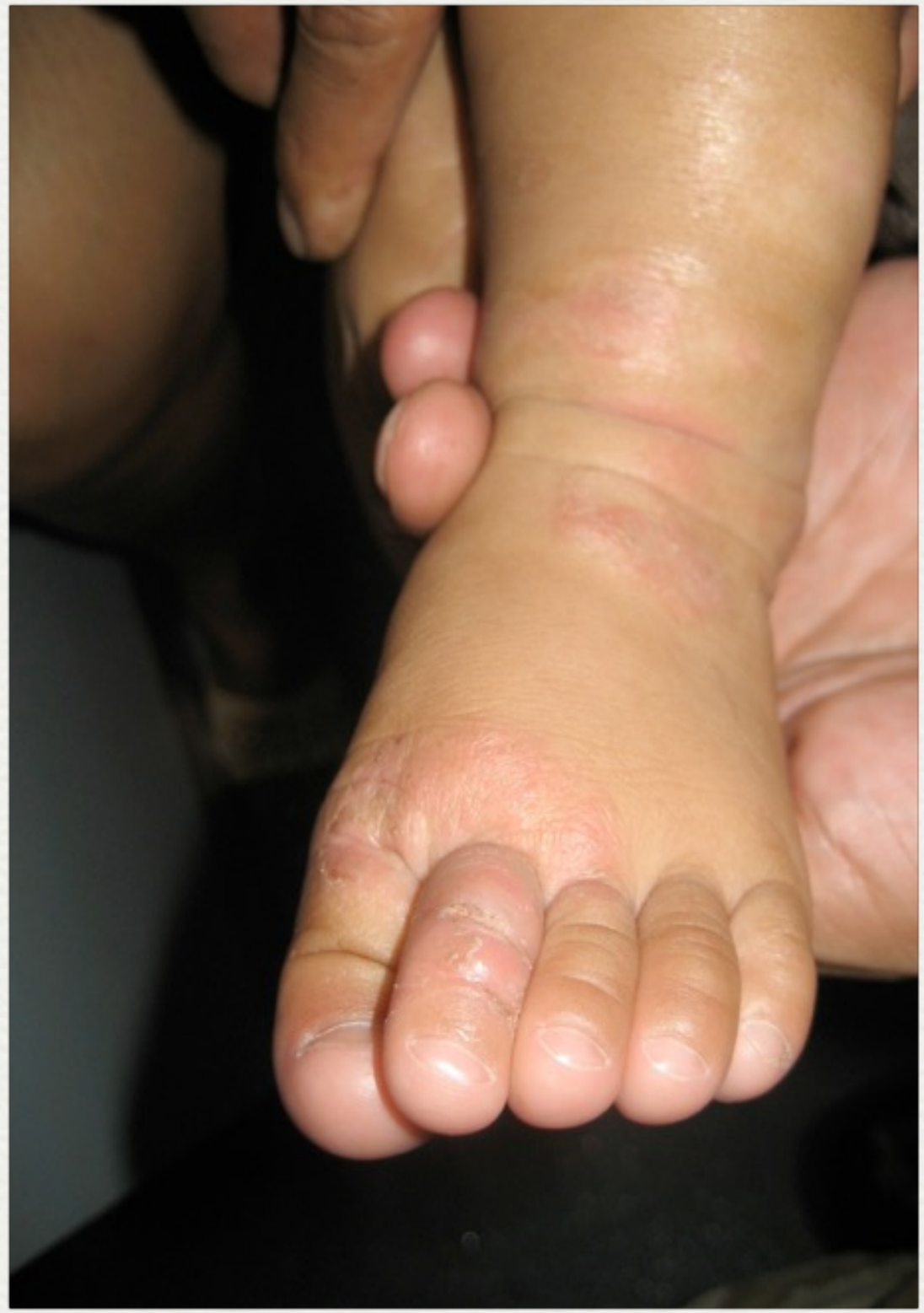




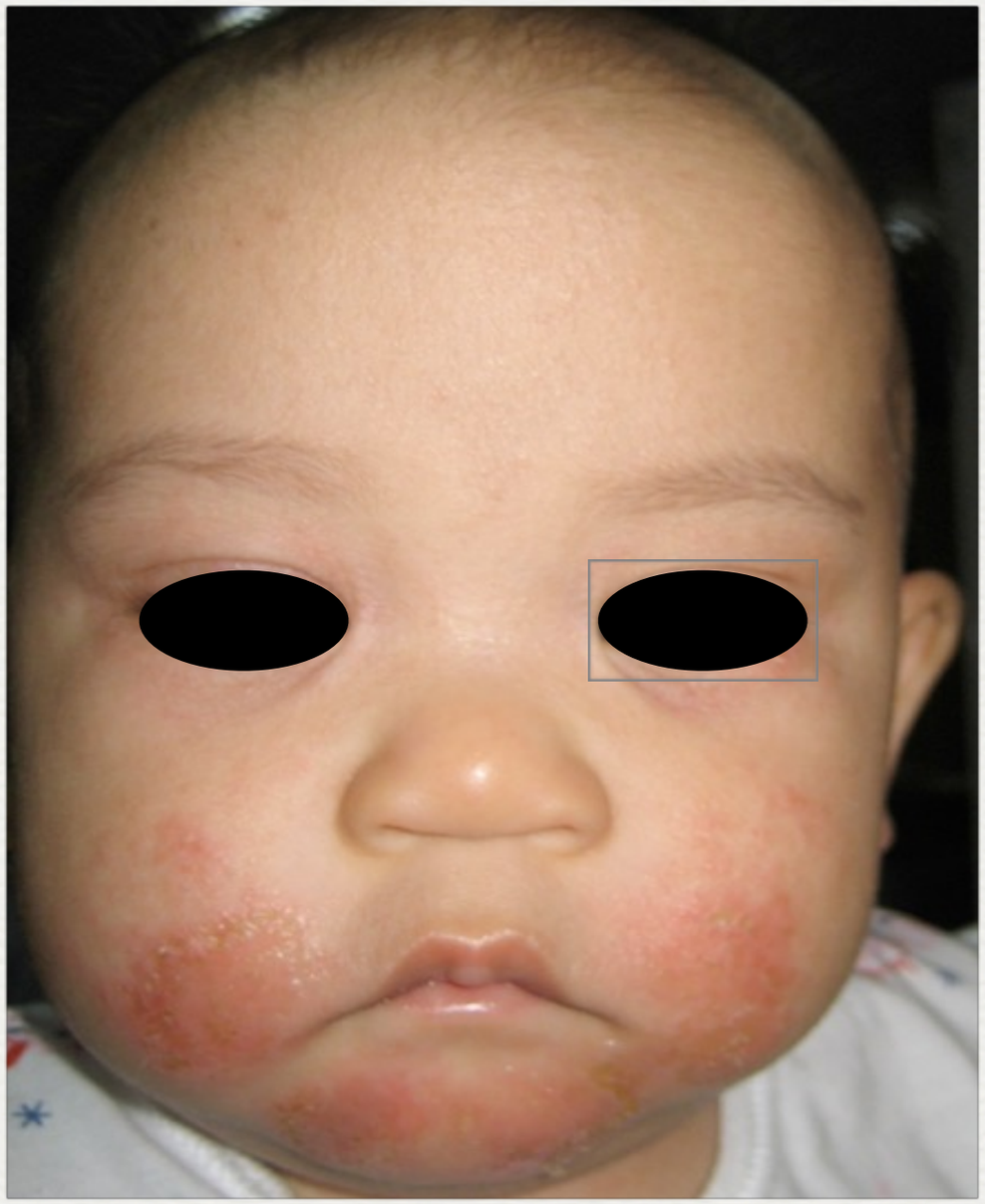


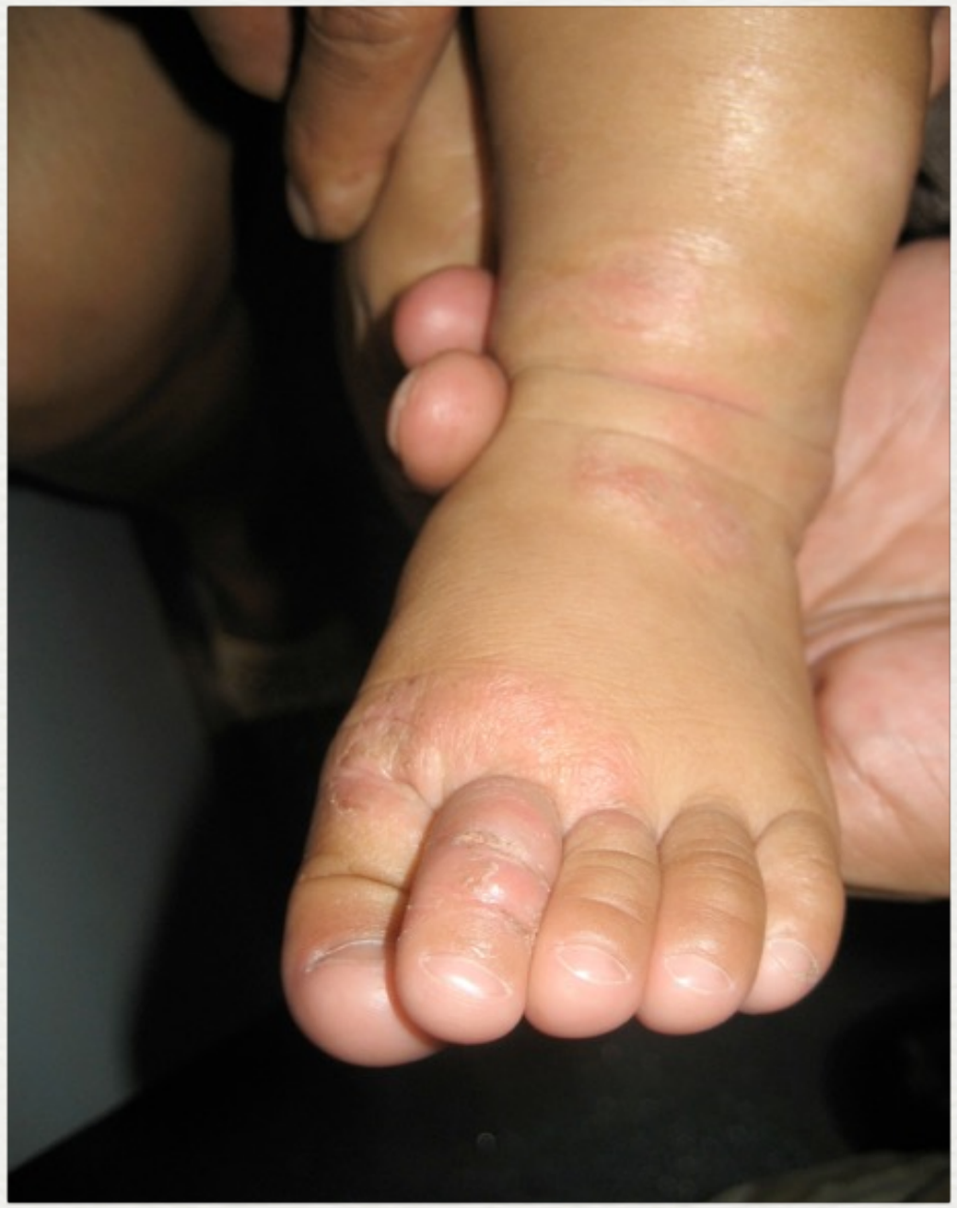






Atopic Dermatitis





How to diagnose Atopic dermatitis ?

- Diagnostic criteria of AD
  - Hanifin and Rajka criteria (1980, 2001)
  - Williams and UK criteria (1994)

Diagnostic criteria for atopic dermatitis: a systematic review
Br J Dermatol,2008;754-65.

Diagnostic criteria of Atopic Dermatitis
Hanifin and Rajka criteria (1980)

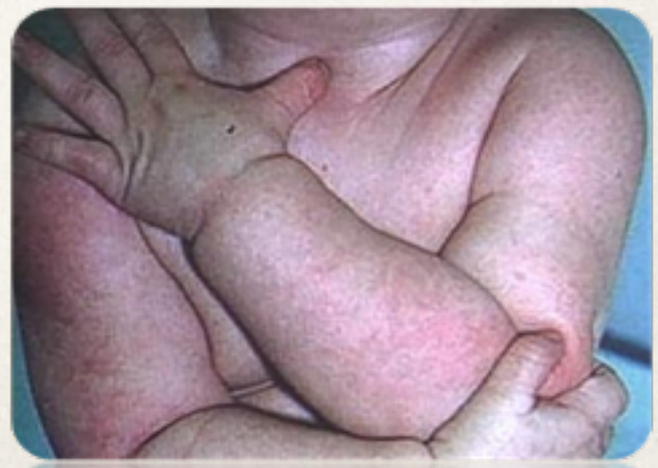
- **Major criteria (3 in 4 criteria)**
- **Minor criteria (3 of 23 criteria)**

Diagnostic criteria for atopic dermatitis: a systematic review
Br J Dermatol,2008;754-65.

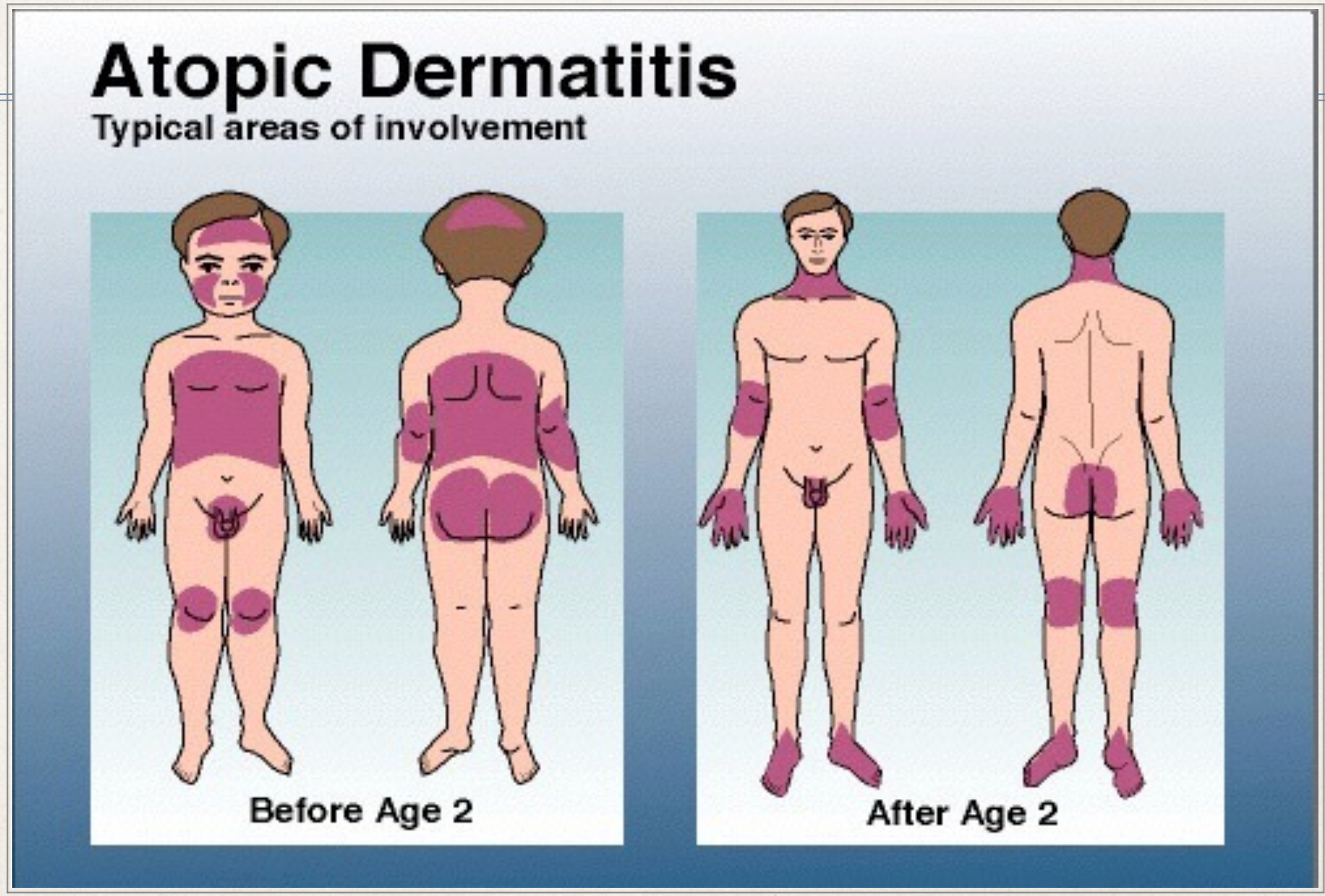
Diagnostic criteria of Atopic Dermatitis
Hanifin and Rajka criteria (1980)

- **Major criteria (3 in 4 criteria)**
  - Pruritus
  - Typical morphology and distribution

    Infant VS Adult
  - Chronic relapsing course
  - Personal or family history of atopy



Typical morphology and distribution

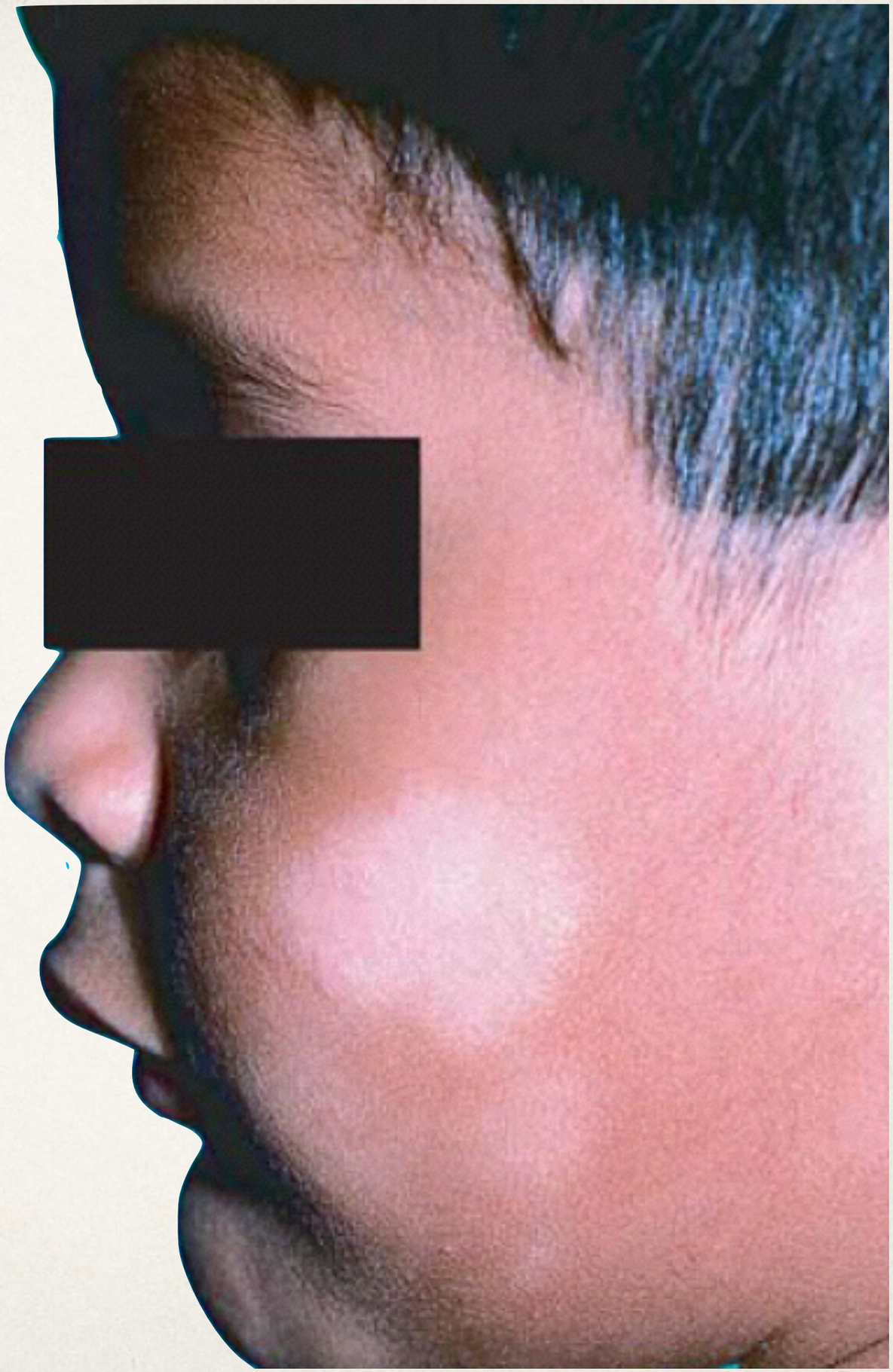


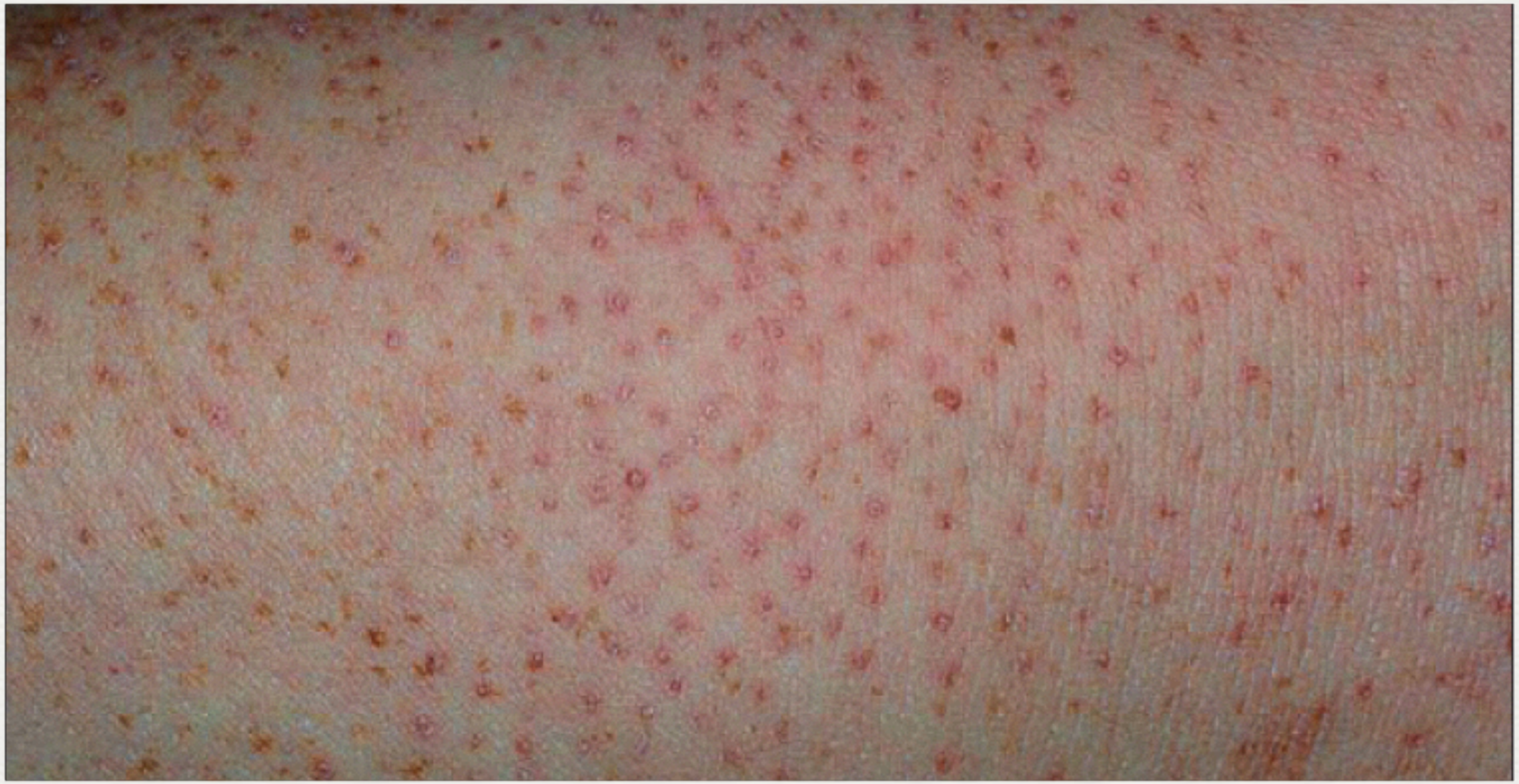
Diagnostic criteria of Atopic Dermatitis
Hanifin and Rajka criteria (1980)

Minor criteria (3 in 23 of the following)

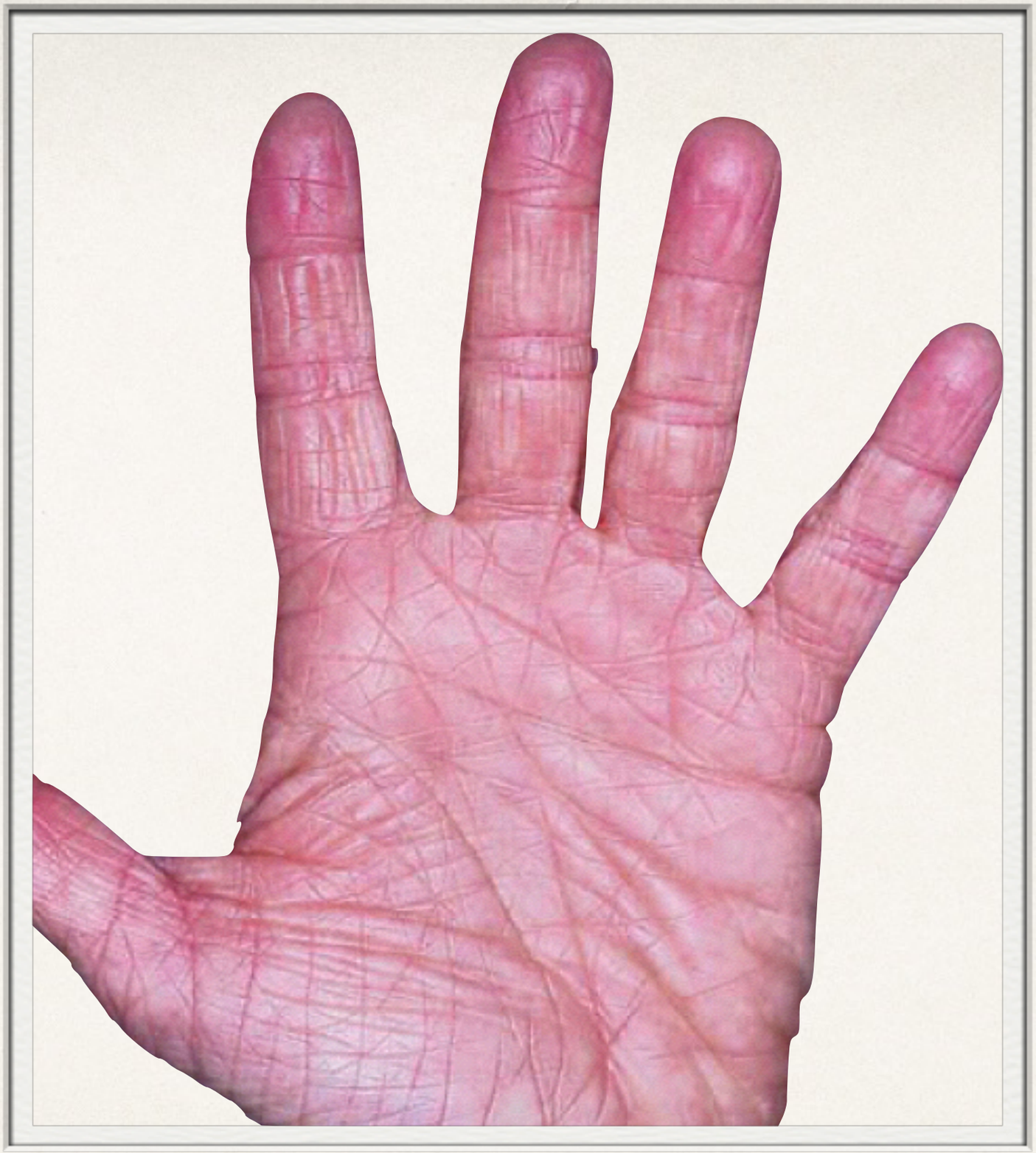
- Xerosis
- Ichthyosis/palmar hyperlinearity/KP
- Immediate skin test reactivity
- Elevated serum IgE
- Early age of onset
- Tendency toward cutaneous infectons (S.aureus & HSV)
- Tendency toward nonspecific hand and feet eczema
- Nipple eczema
- Cheilitis
- Recurrent conjunctivitis
- Dannie-Morgan infraorbital fold
- Keratoconus
- Anterior subcapsular cataracts
- Orbital darkening
- Facial pallor/facial erythema
- Pityriasis alba
- Anterior neck folds
- Itch when sweating
- Intolerance to wool and lipid solvents
- Perifollicular accentuation
- Food Intolerance
- Course influenced by environment/ emotional factors
- White dermographism/ delayed blanch

Pityriasis alba

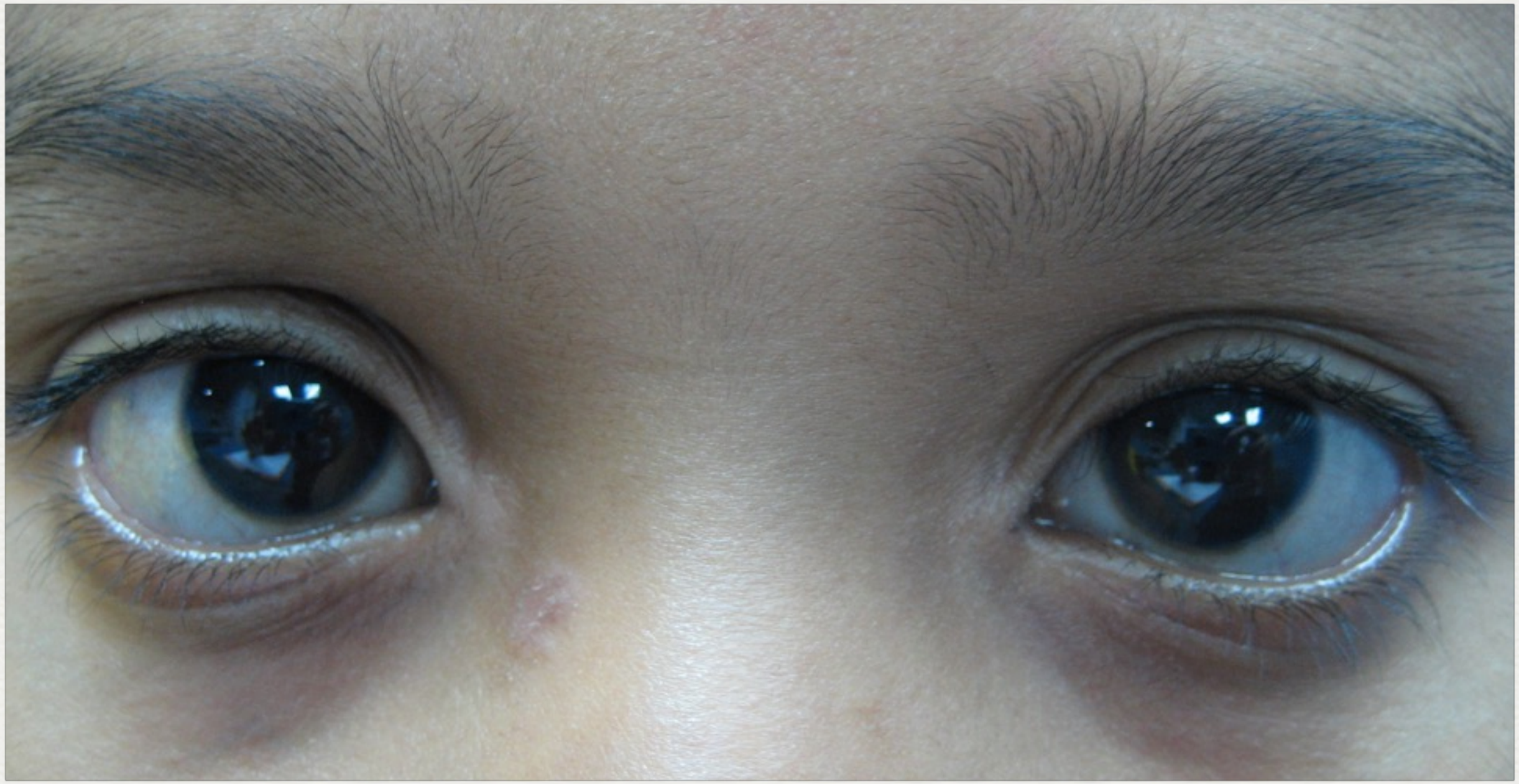




Keratosis pilaris

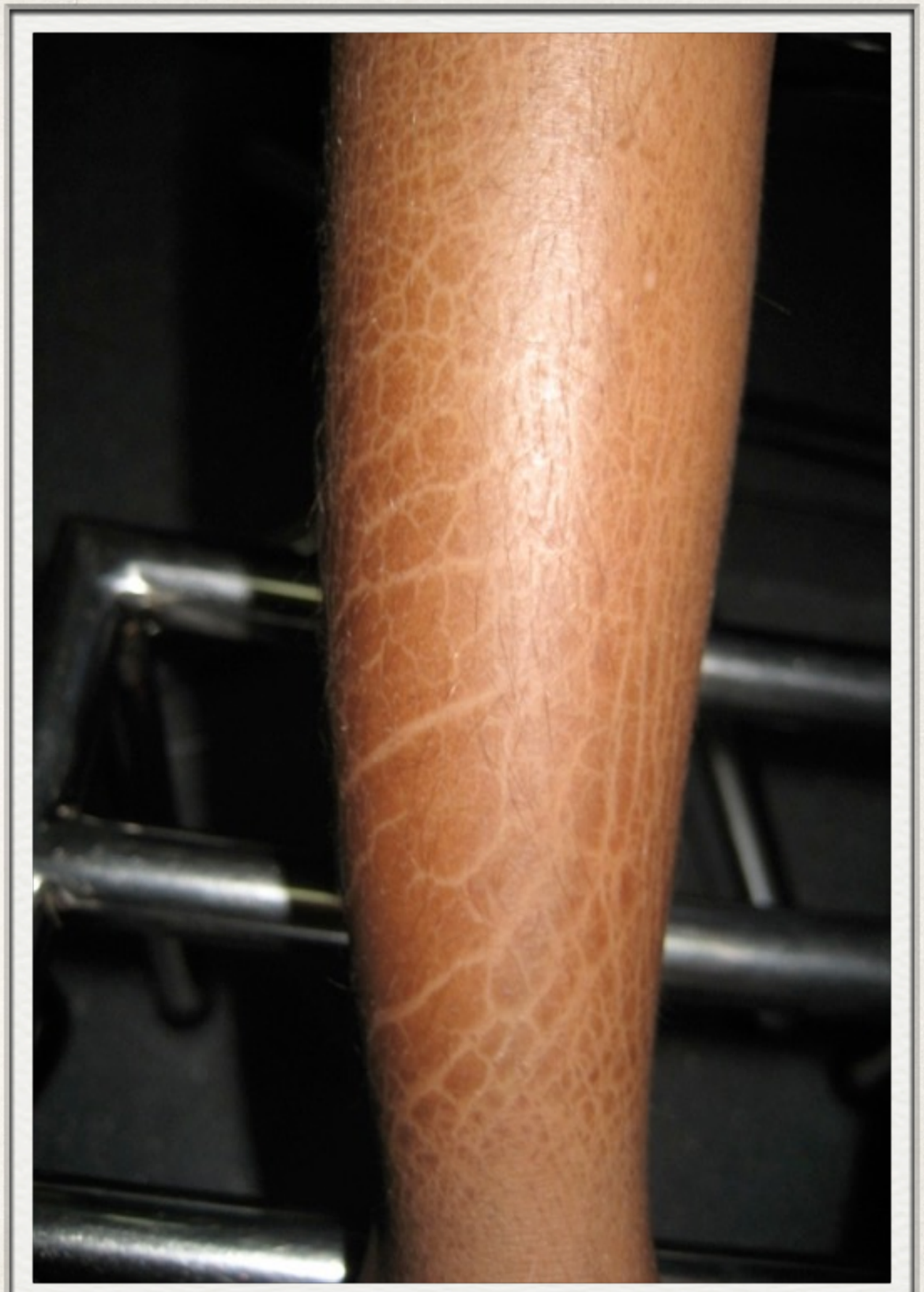


Hyperlinear palm

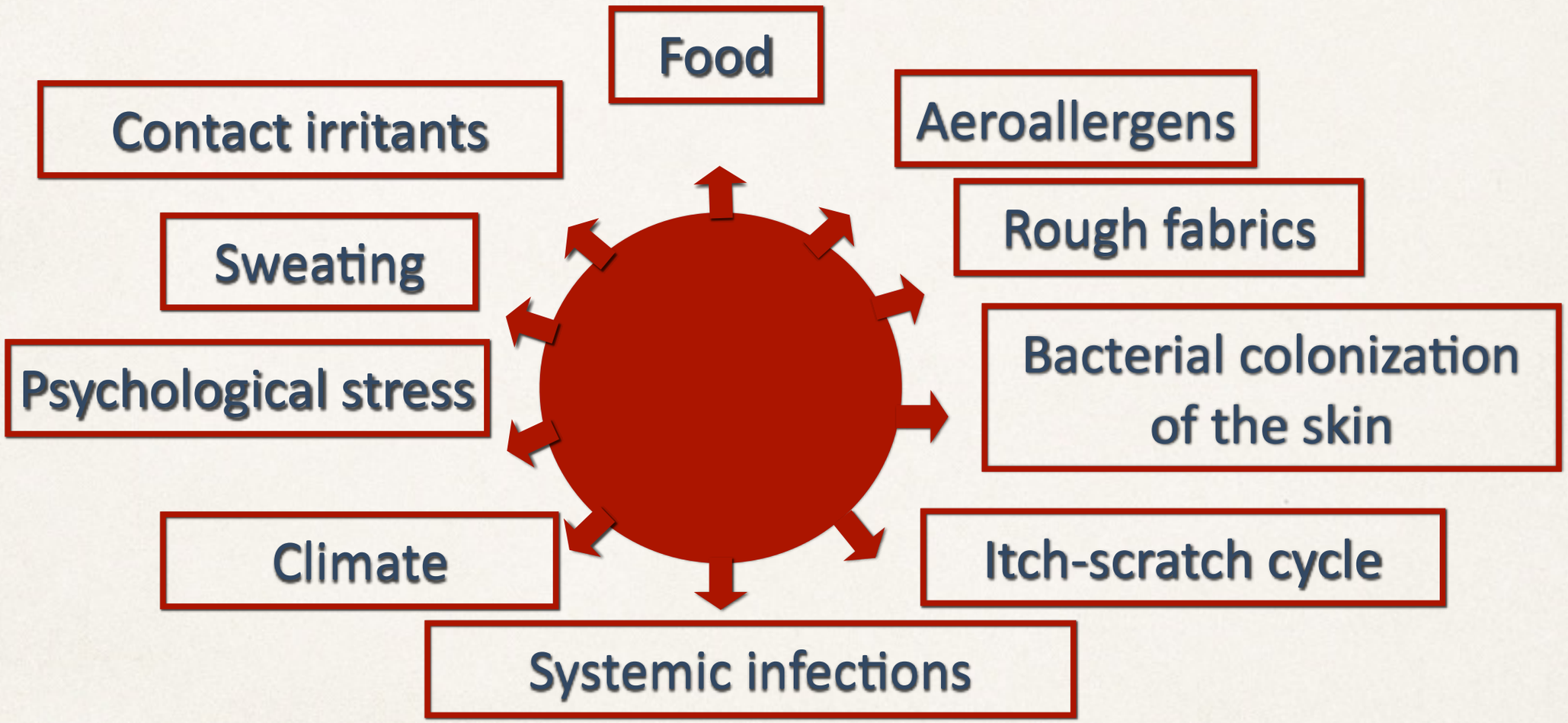


Orbital darkening

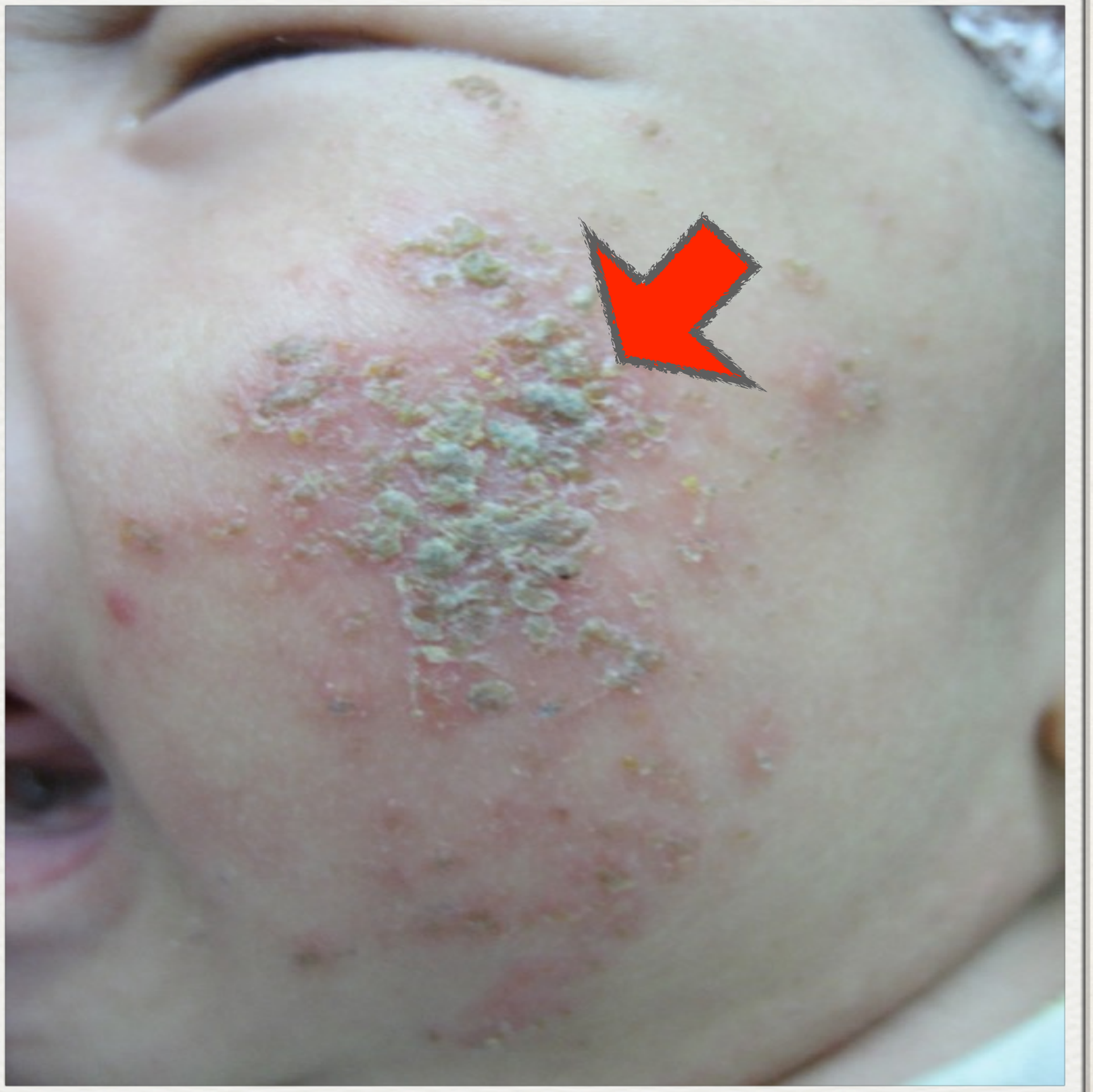
Ichthyosis vulgaris

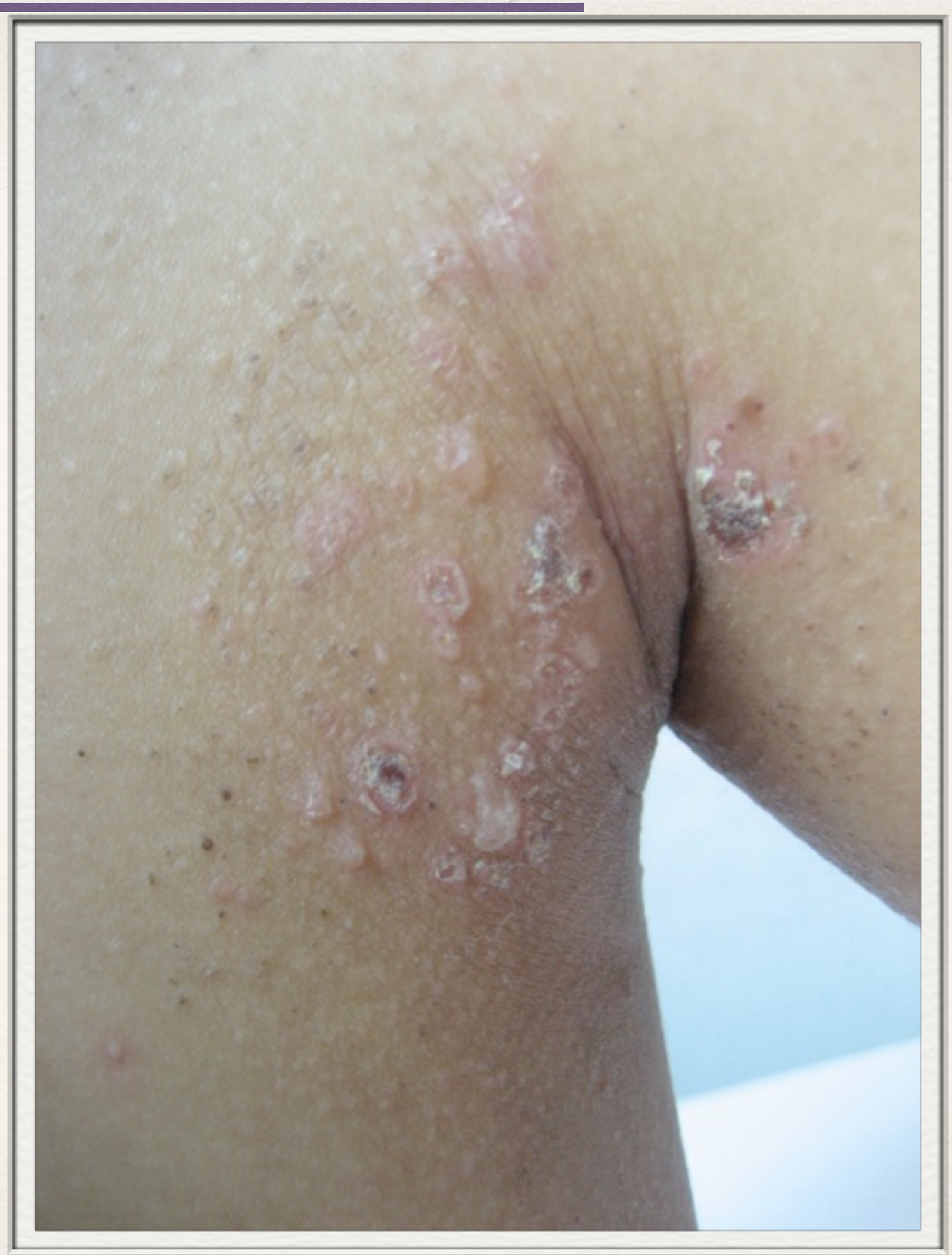


Triggering Factors for Atopic Dermatitis



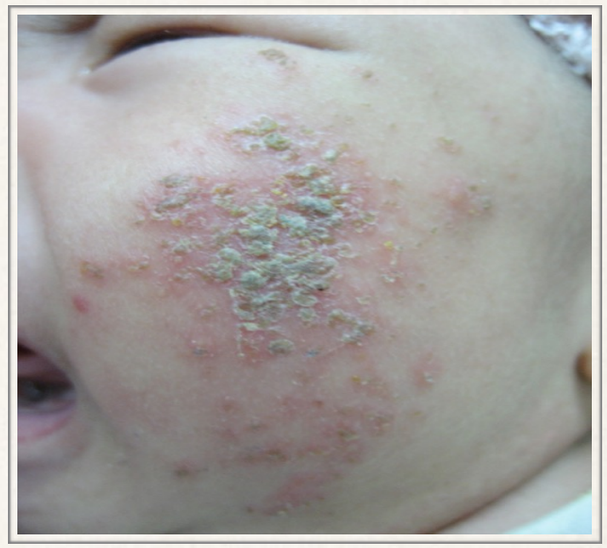
Martin III RW,Popovich NG.US Pharmacist Dec 2000:89-101.
Bender BG, Immunology and Allergy Clinics of North America 2002;22(1):43-53

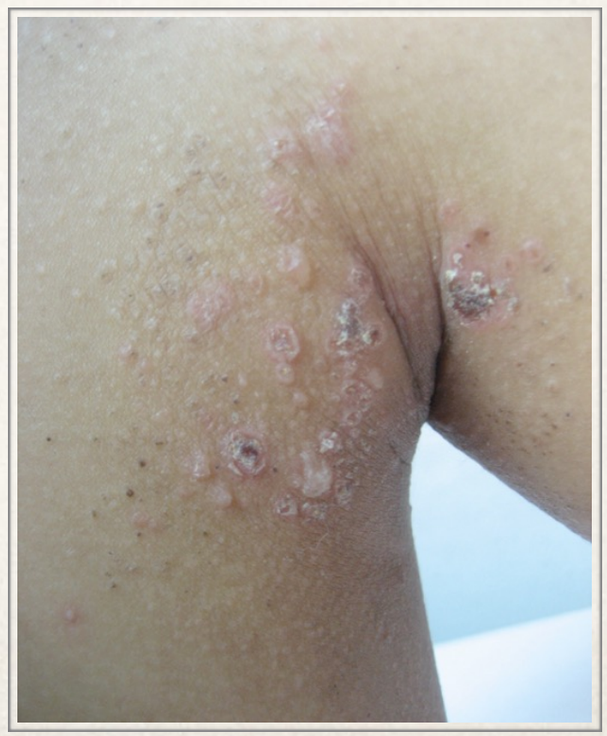




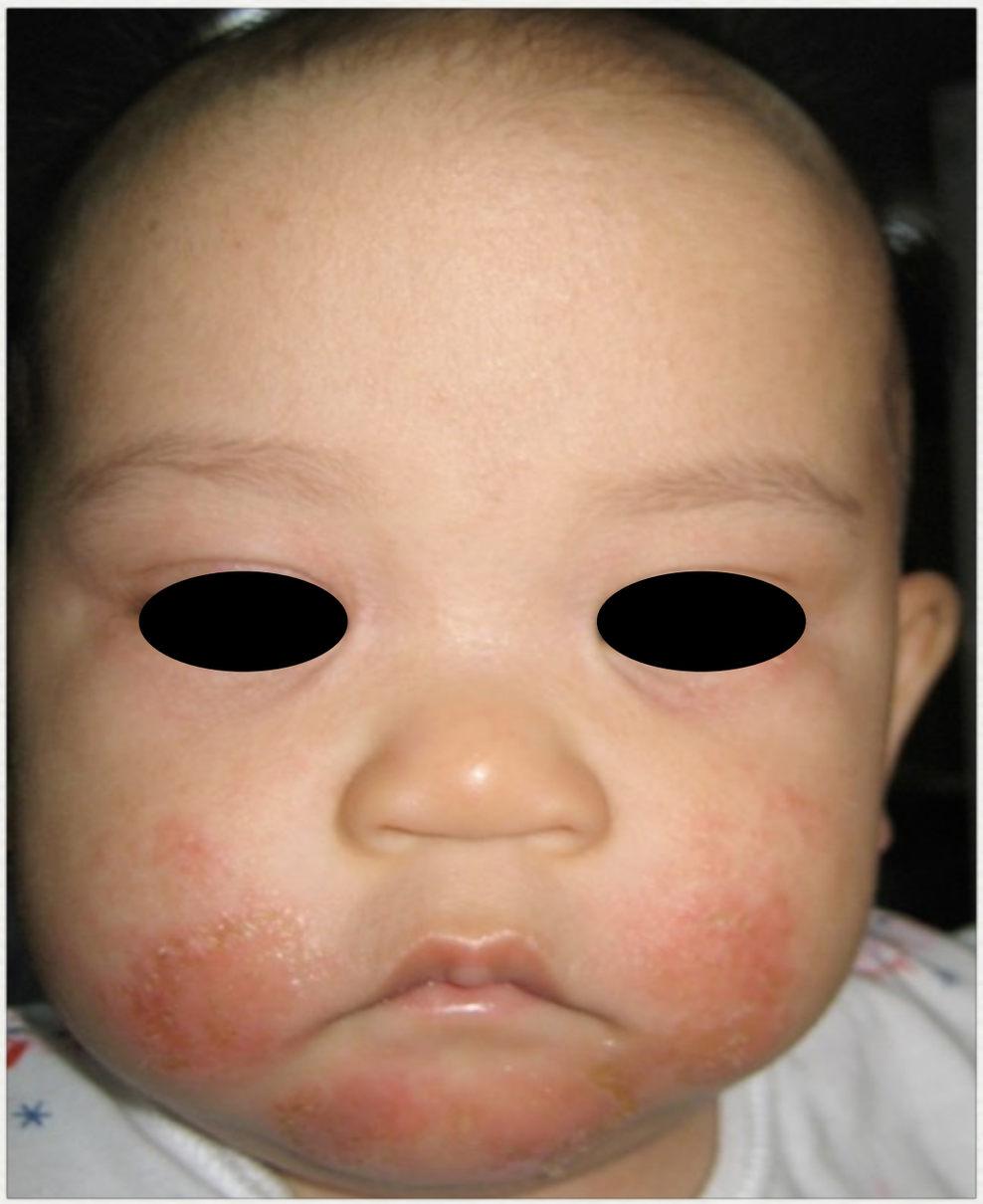
Infectious complication of Atopic Dermatitis

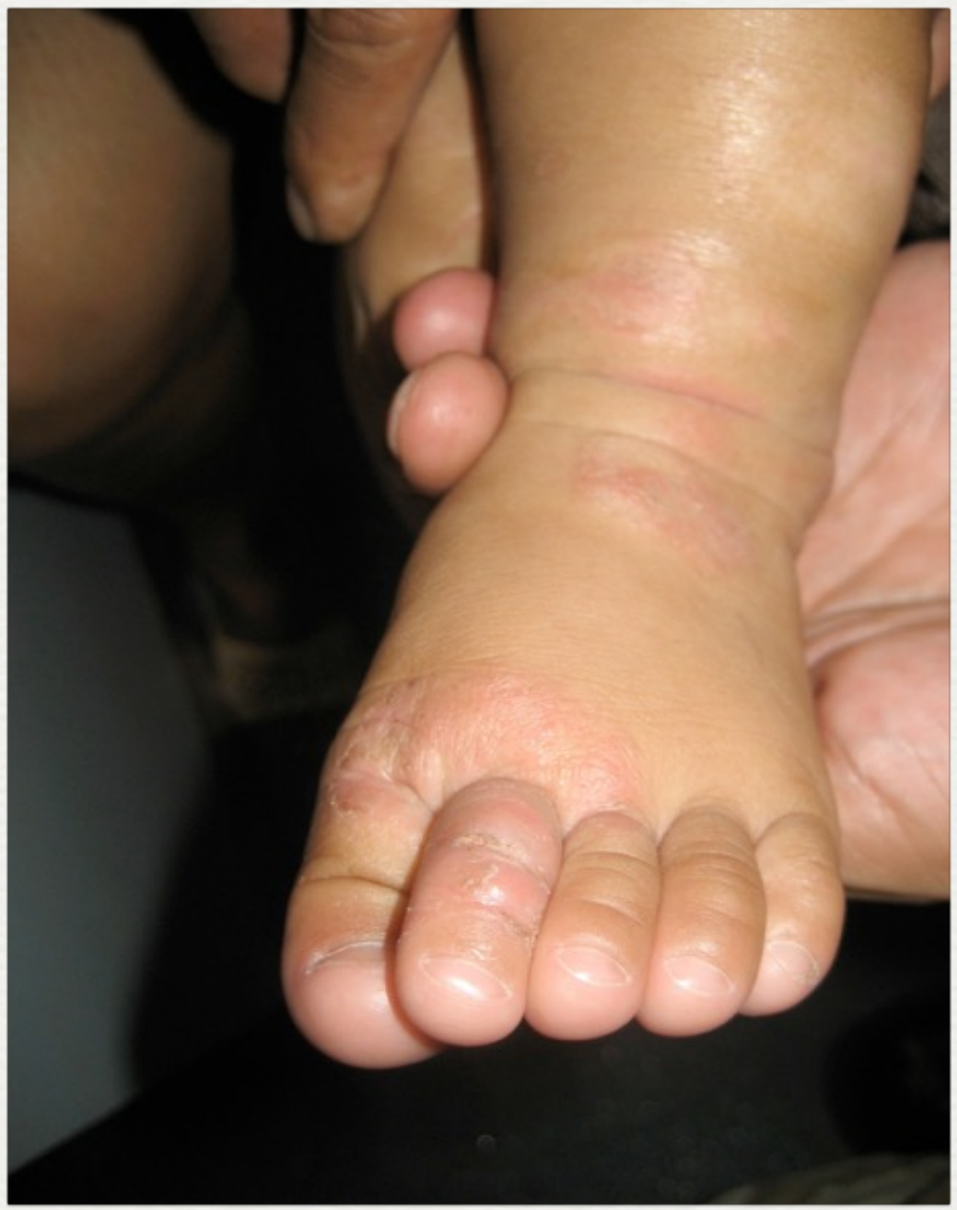
- Secondary **bacterial** infection:
  - S.aureus: exacerbate AD
  - S.pyogenes
- Secondary **viral** infection:
  - HSV: Eczema herpeticum
  - Molluscum contagiosum





Atopic Dermatitis





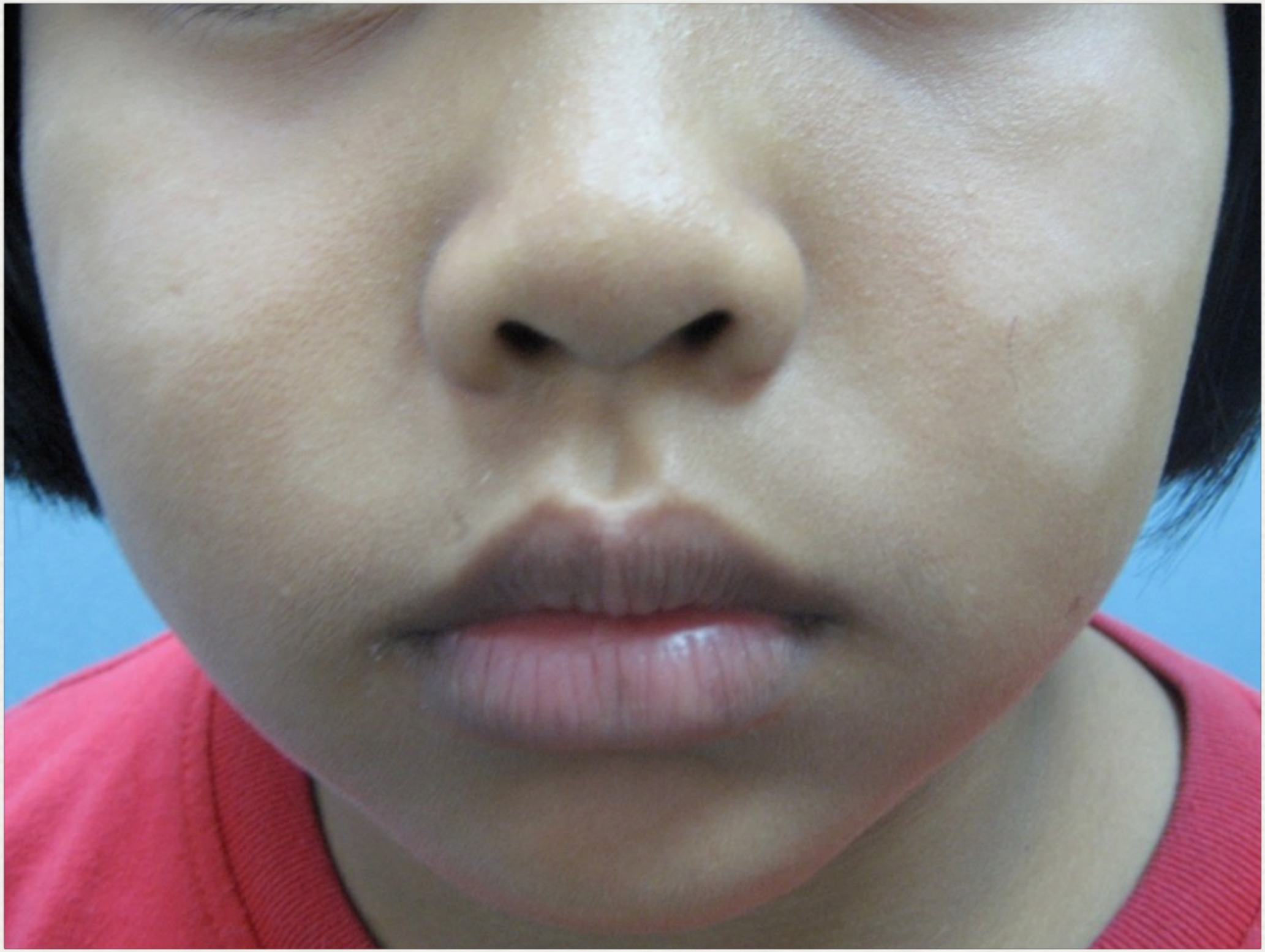
ภาควิชากุมารเวชศาสตร์
คณะแพทยศาสตร์ มหาวิทยาลัยขอนแก่น

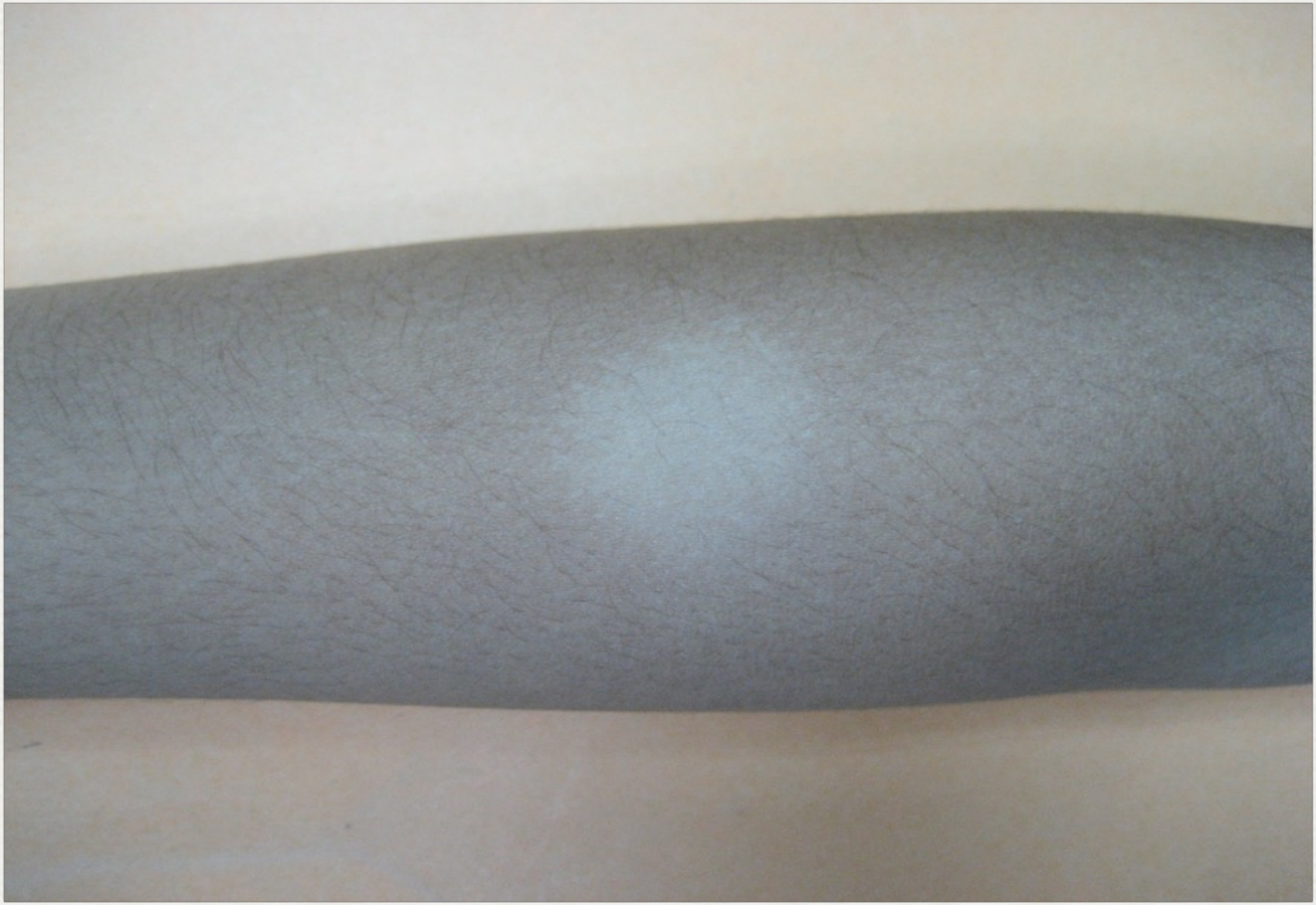
โรคผื่นภูมิแพ้ผิวหนัง

Atopic Dermatitis

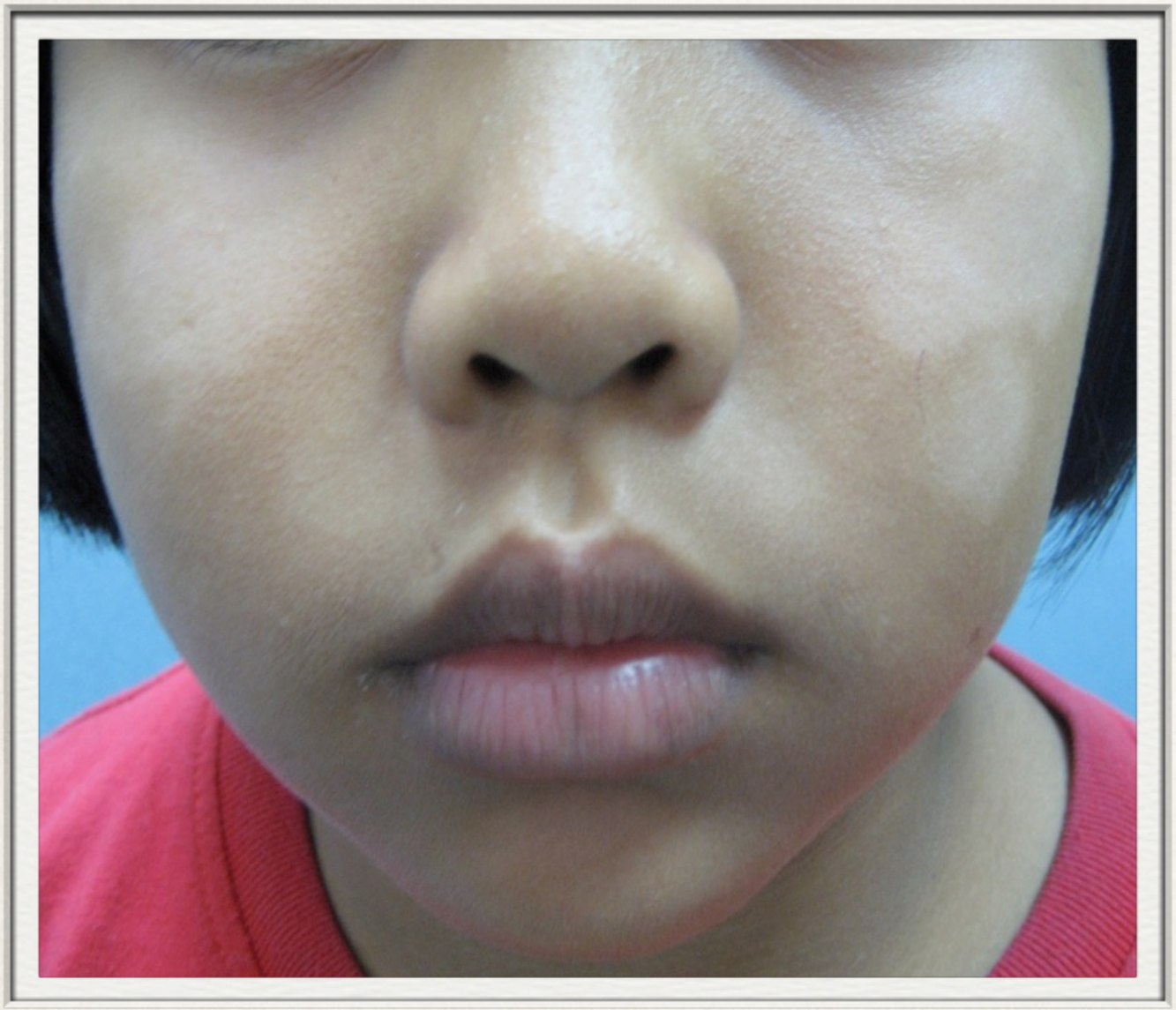
ลีลาวดี เตชาเสถียร
บรรณาธิการ

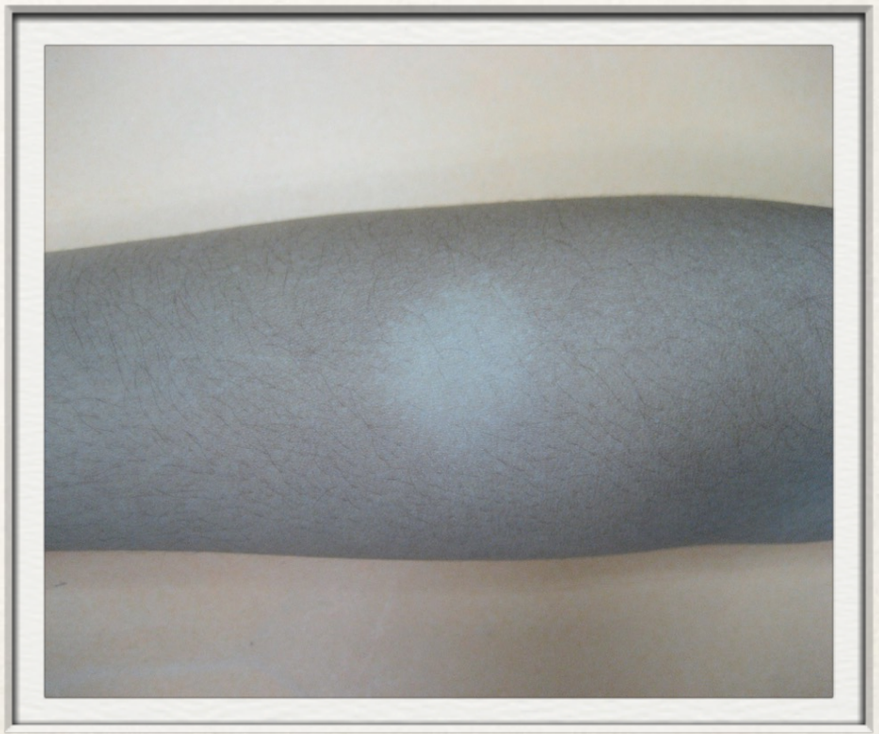
~~290 บาท~~
190 บาท
(ราคานักศึกษาแพทย์)





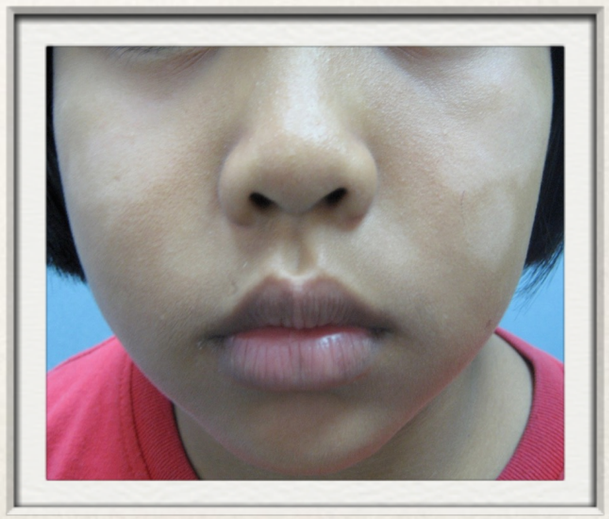
Pityriasis alba





Pityriasis alba

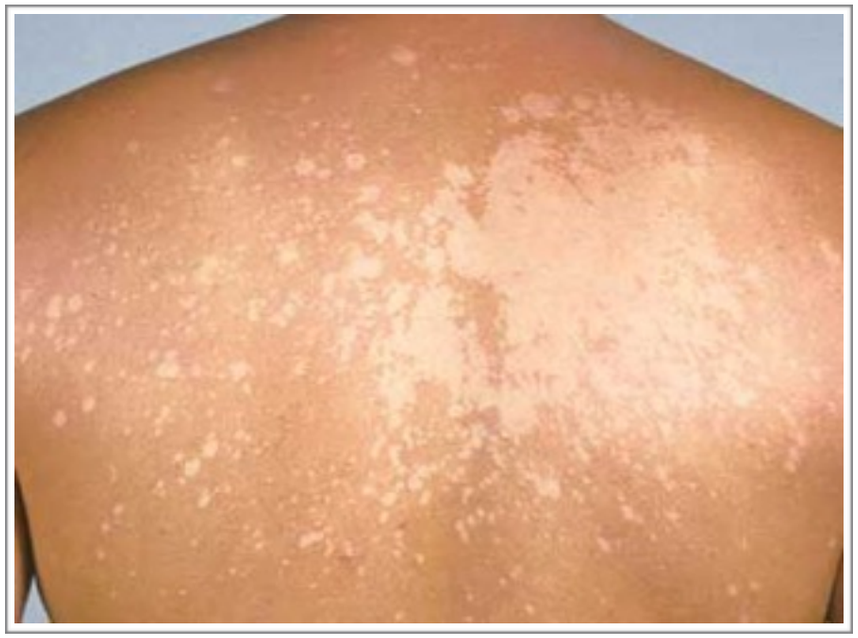
- Nonspecific skin disorder with unknown origin
- Asymptomatic hypopigmented patch with fine scale
- Location
  - face, neck, upper trunk
  - extensor surface of arms and legs

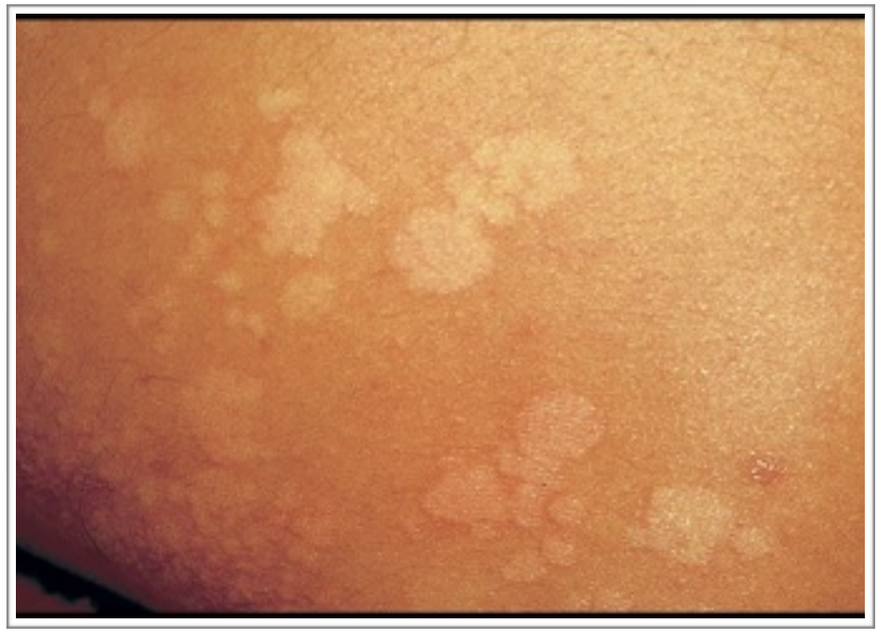


Differential diagnosis

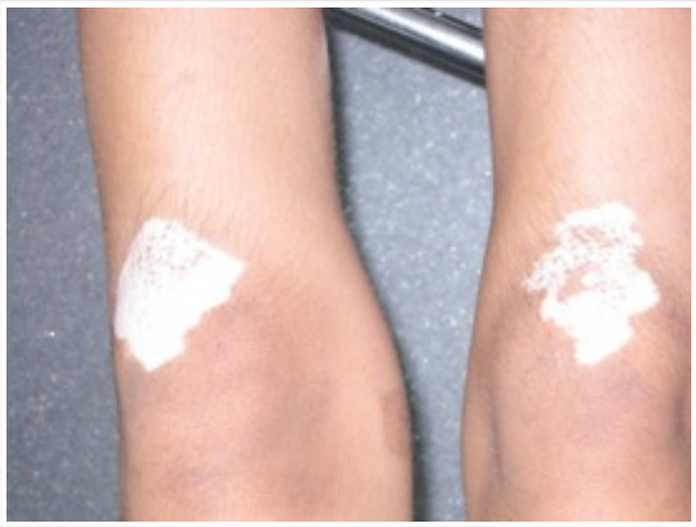
- Tinea versicolor
- Vitiligo

Tinea Versicolor



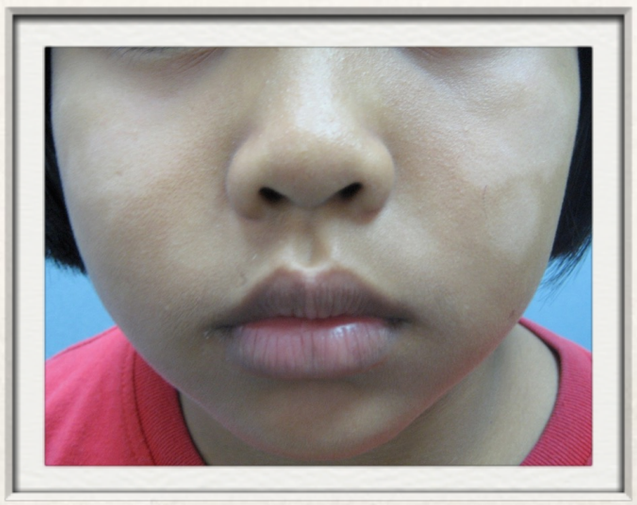


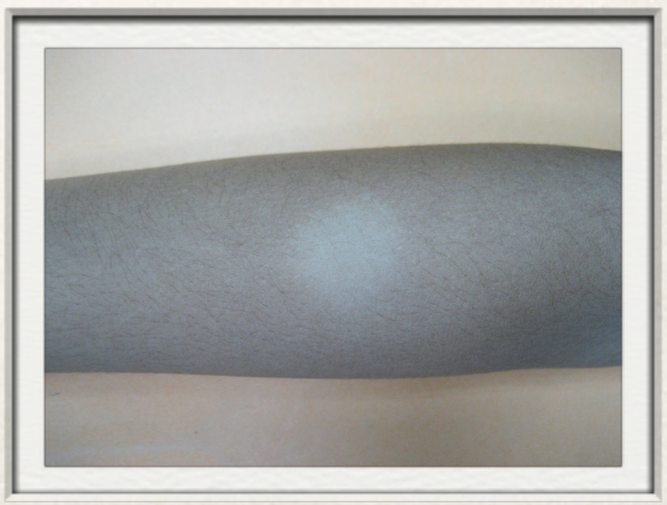
Vitiligo

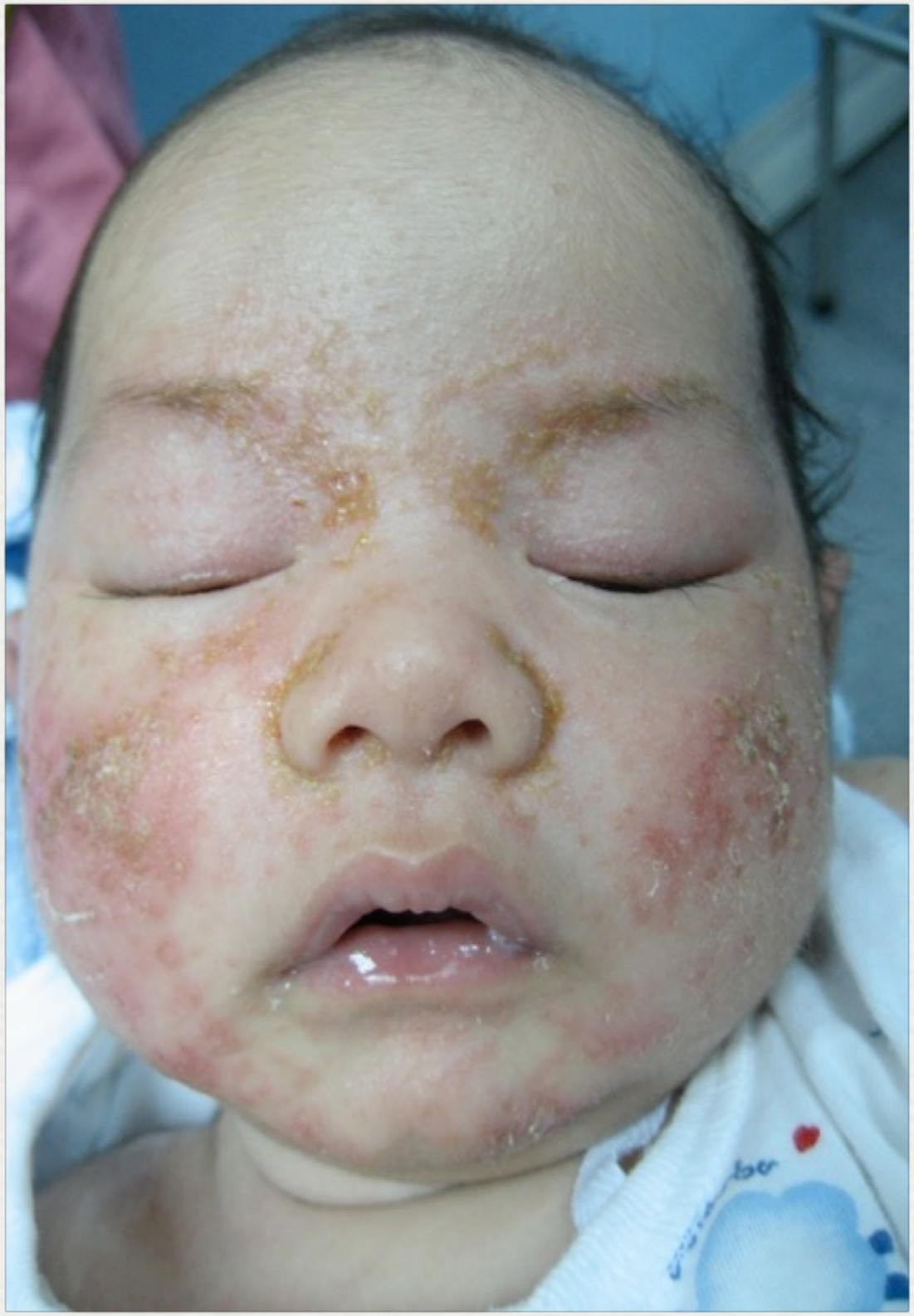


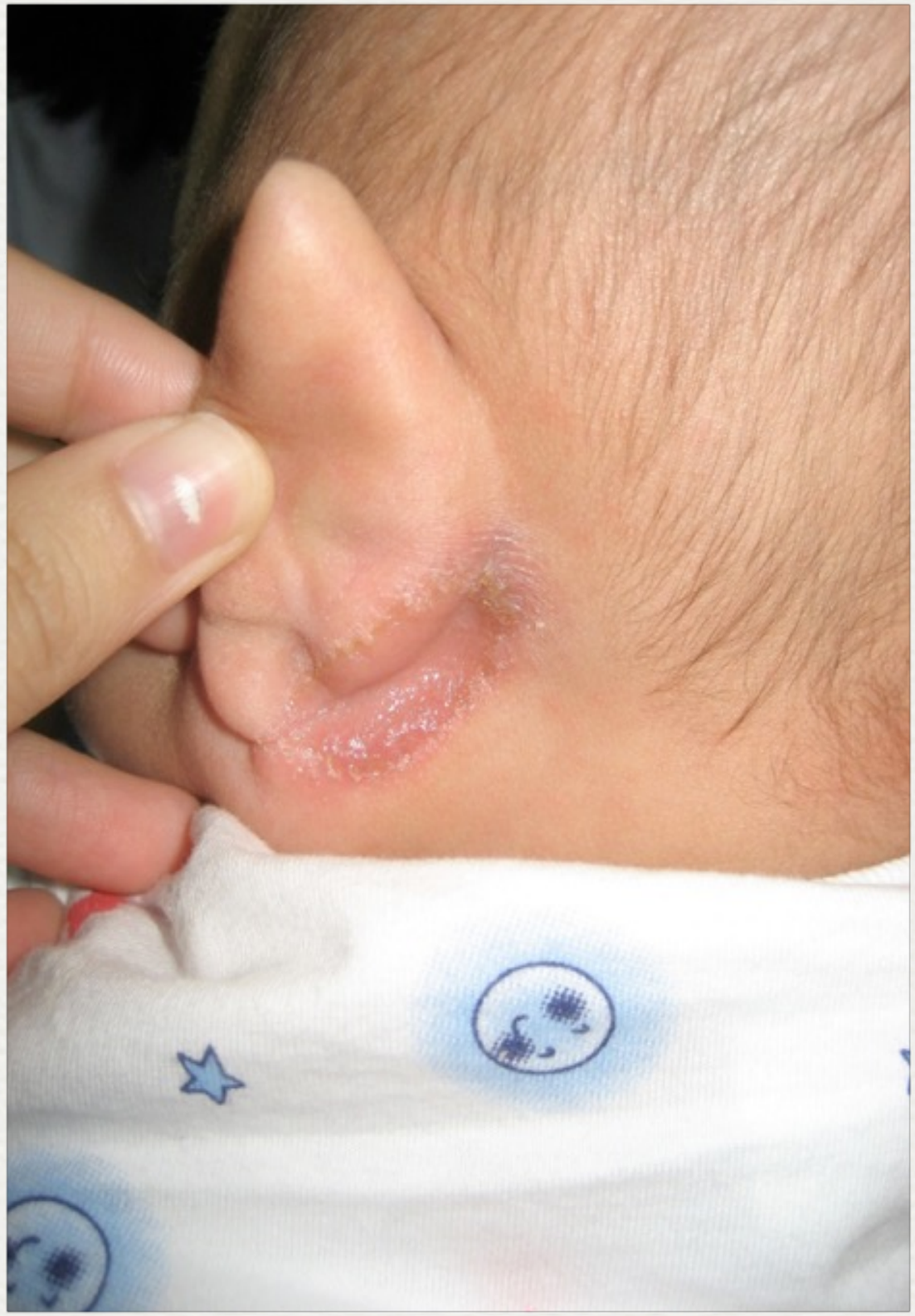
Pityriasis alba

- Course: Self-limited with excellent prognosis
- Treatment
  - Frequent emolliation
  - Mild topical corticosteroids
  - Protection from sun exposure
  - <u>Repigmentation may take several months-years</u>

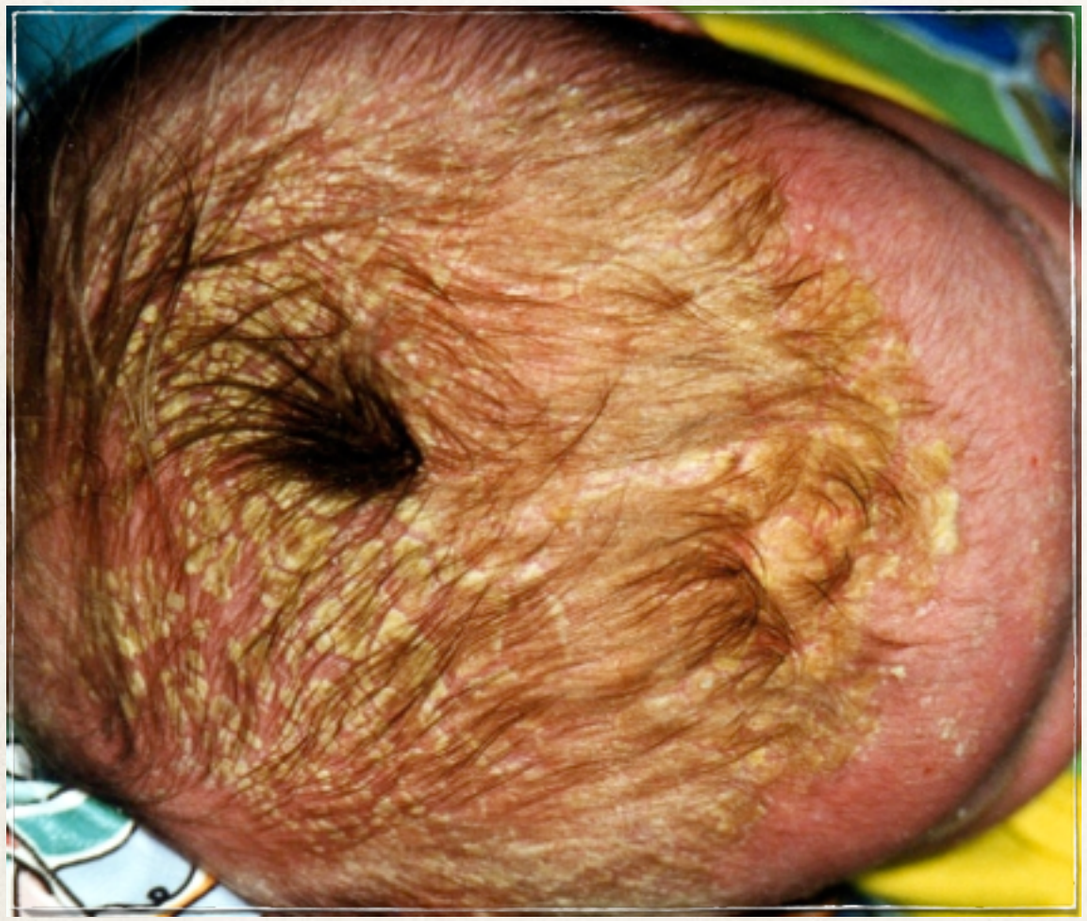


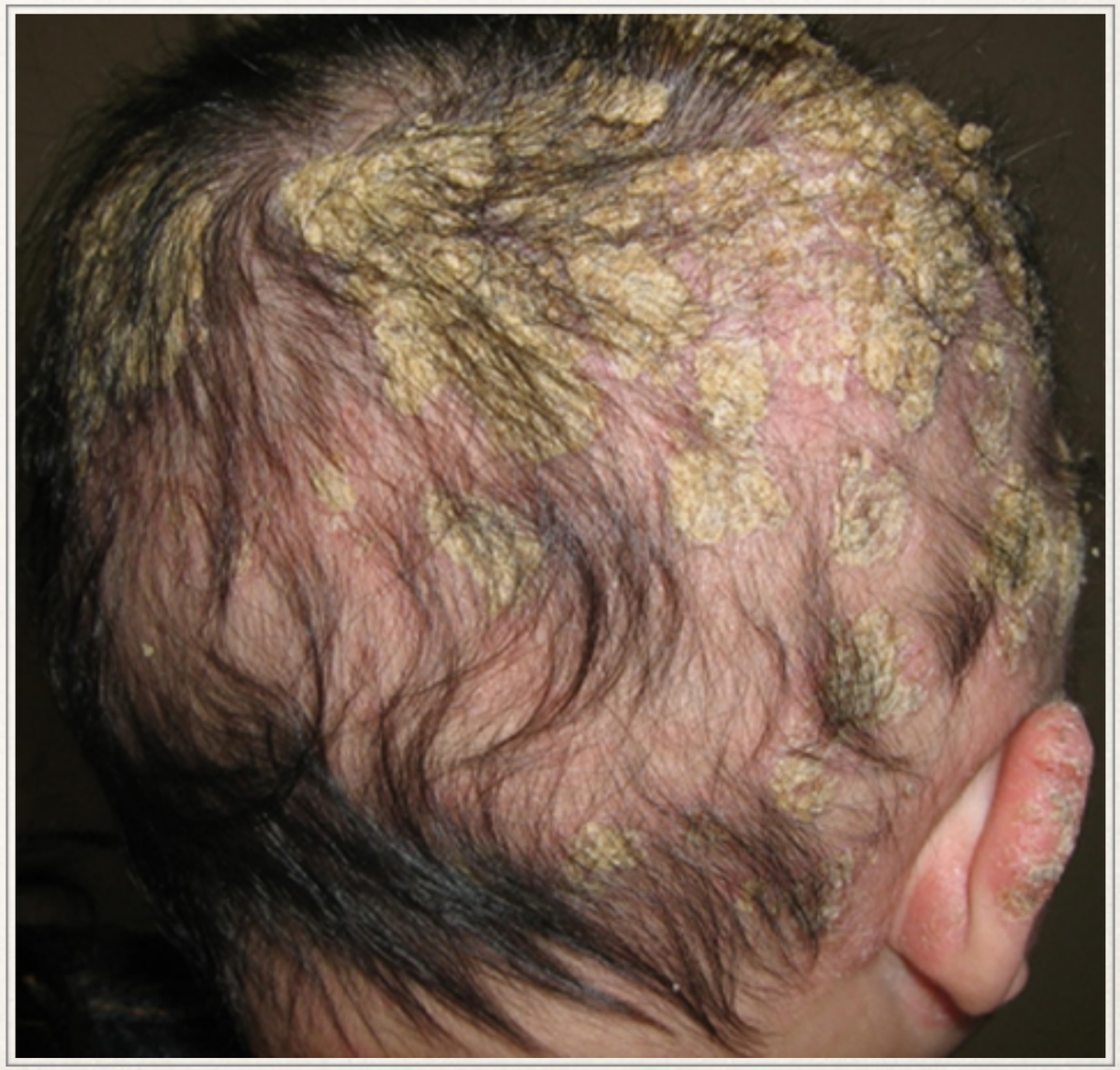






Seborrheic dermatitis



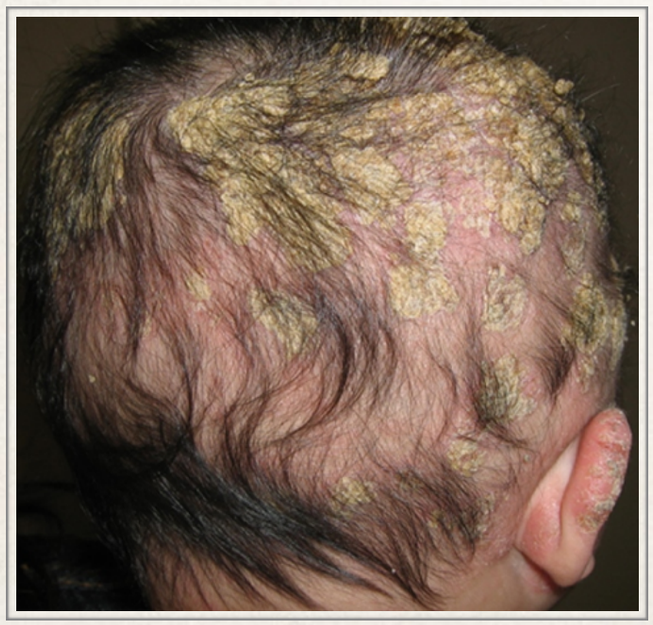


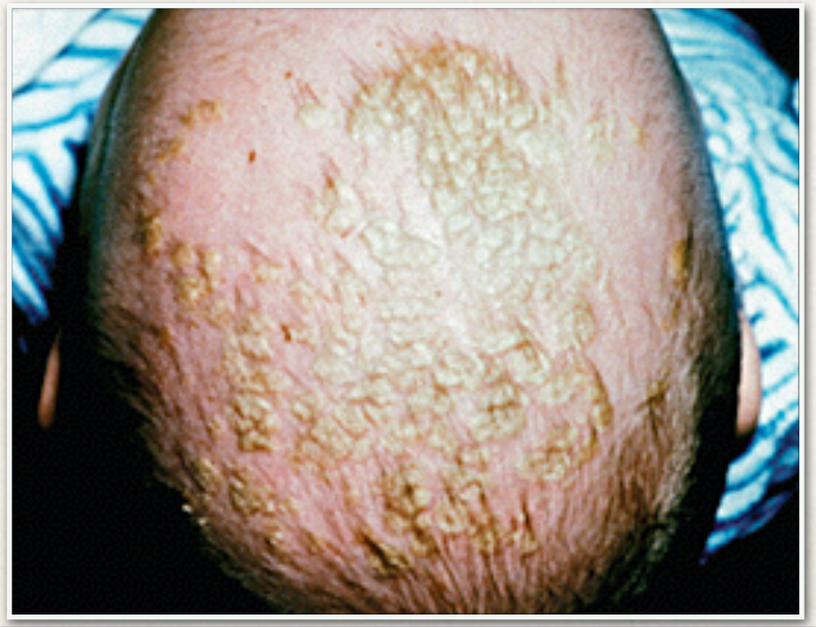
Seborrheic dermatitis

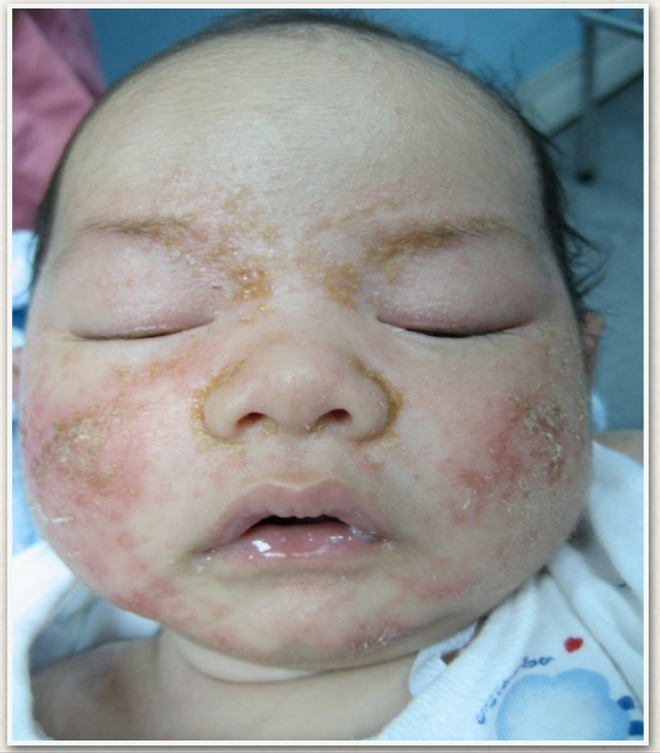
- Erythematous, scaly, crusting eruption
- Occuring primarily in seborrheic area
- Pruritus is slight or absent
- Commonly seen in infants and adolescent
- Cause: not well understood
  - Adolescent and adult: Pityrosporum ovale
  - Infant: Not well understood

Infantile Seborrheic Dermatitis

- Self limited
- Excellent prognosis
- Most cases clear spontaneously by 8-12 months of age





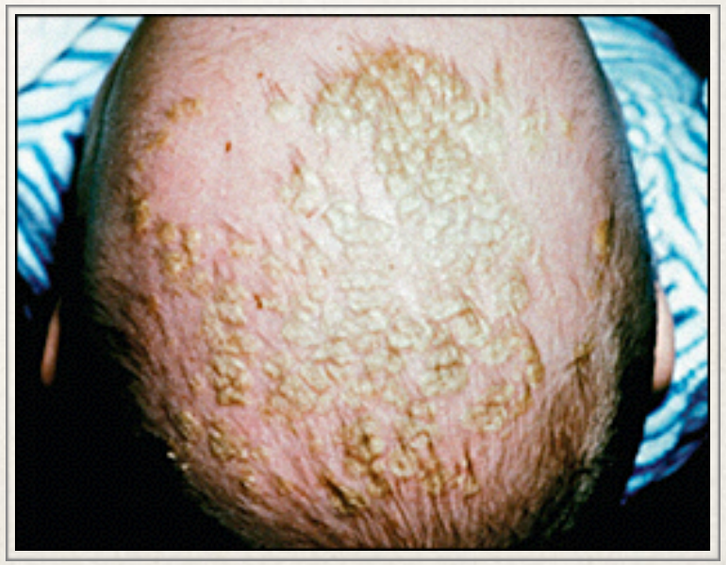


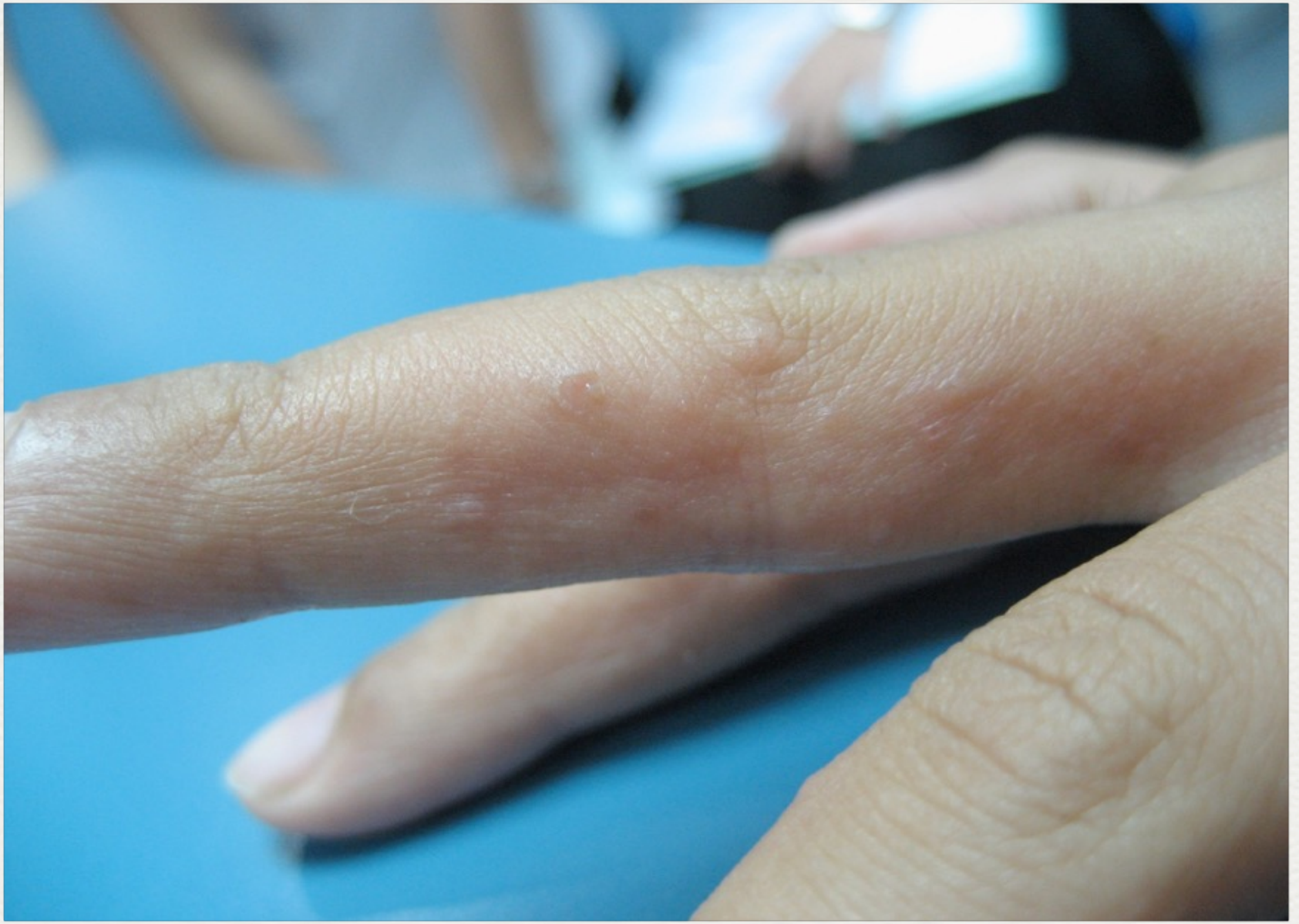
Infantile Seborrheic Dermatitis

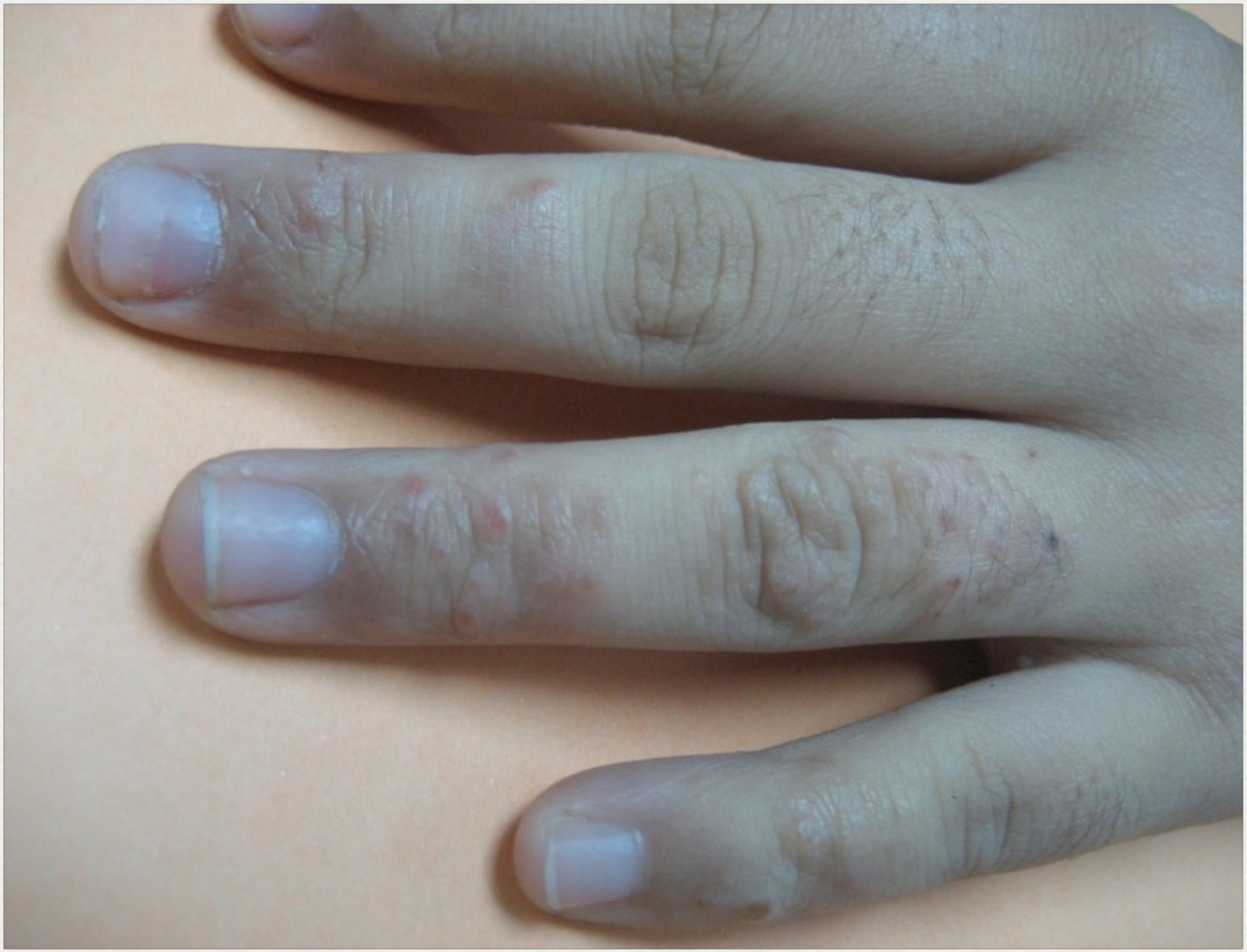
Treatment

- Frequent shampooing
- Application of mineral or baby oil
- Topical steroid lotion or solution

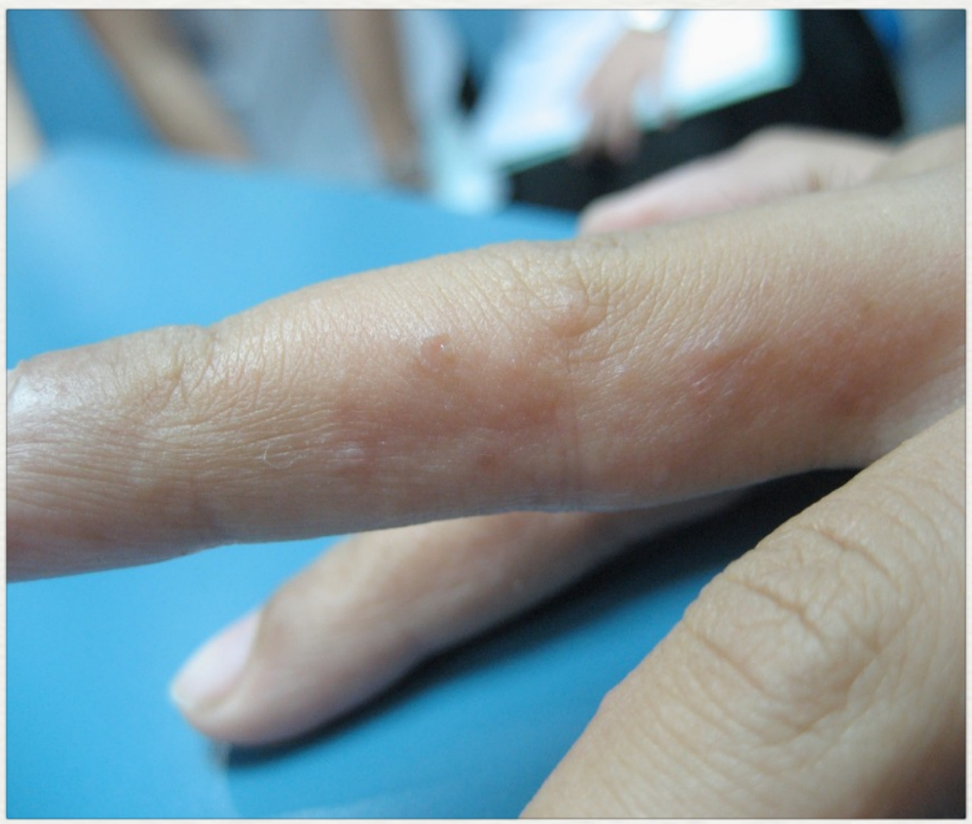
  -- If presented significant inflammatory component

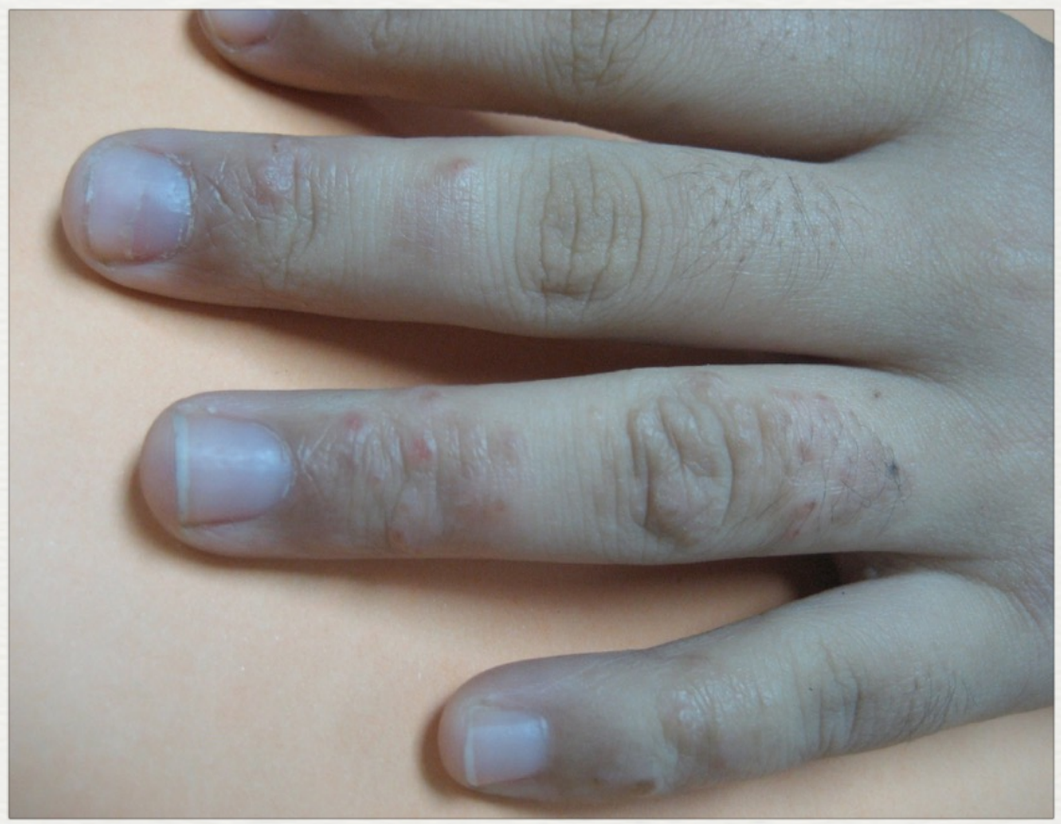






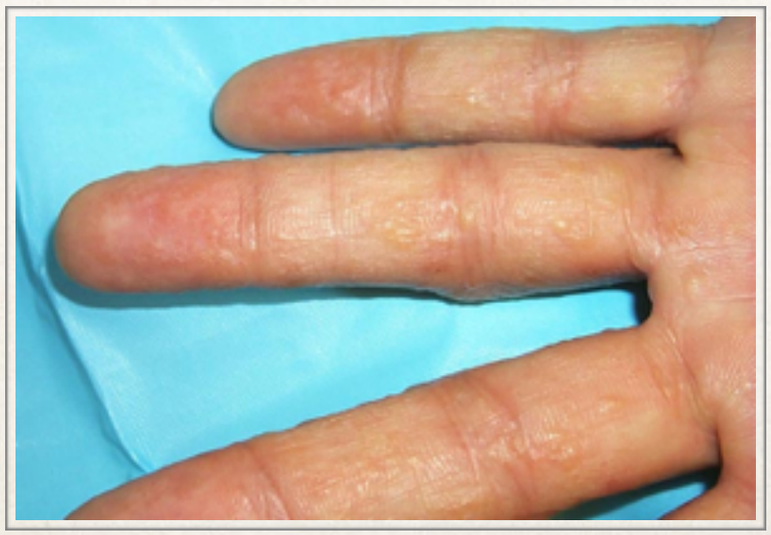
Dyshidrosis

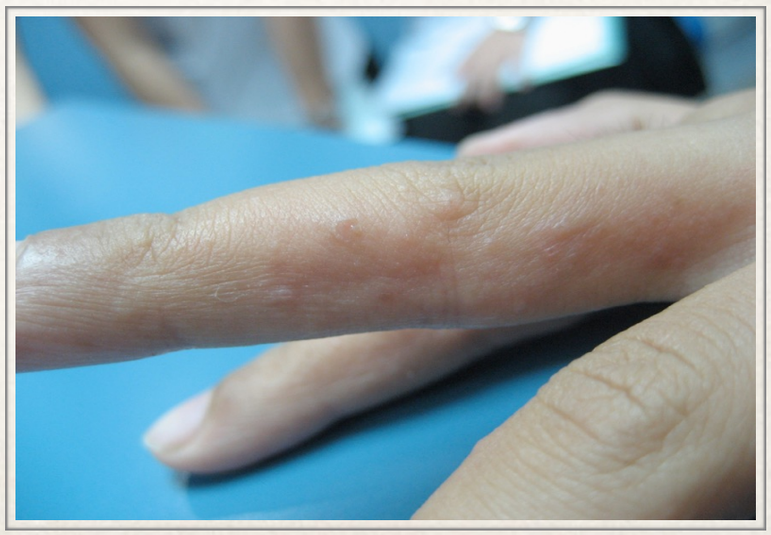




Dyshidrosis

- Also called “Pompholyx”
- Unknown etiology
- Recurrent/chronic deep-seated vesicles to large tense bullae
- Location: palms, soles, and lateral aspects of the fingers
- Bilateral and symmetrical

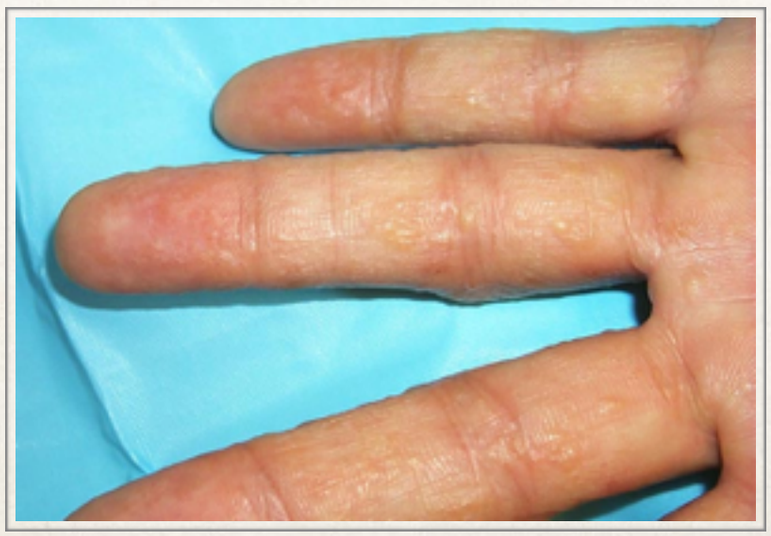


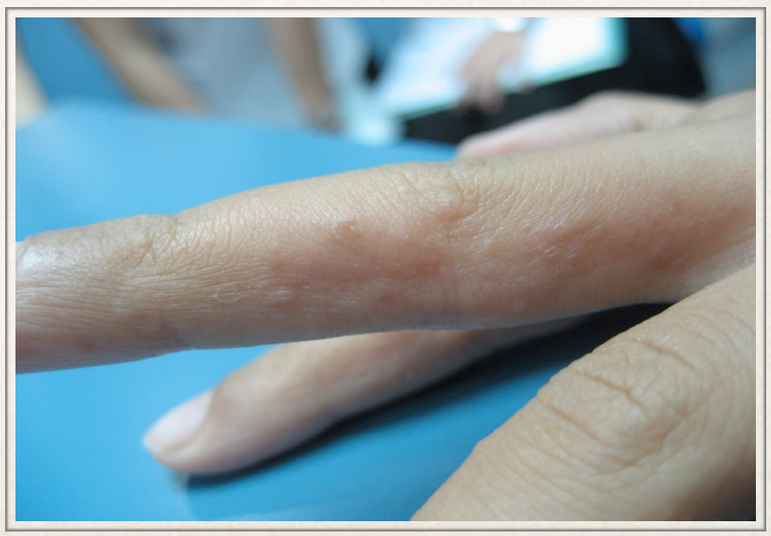


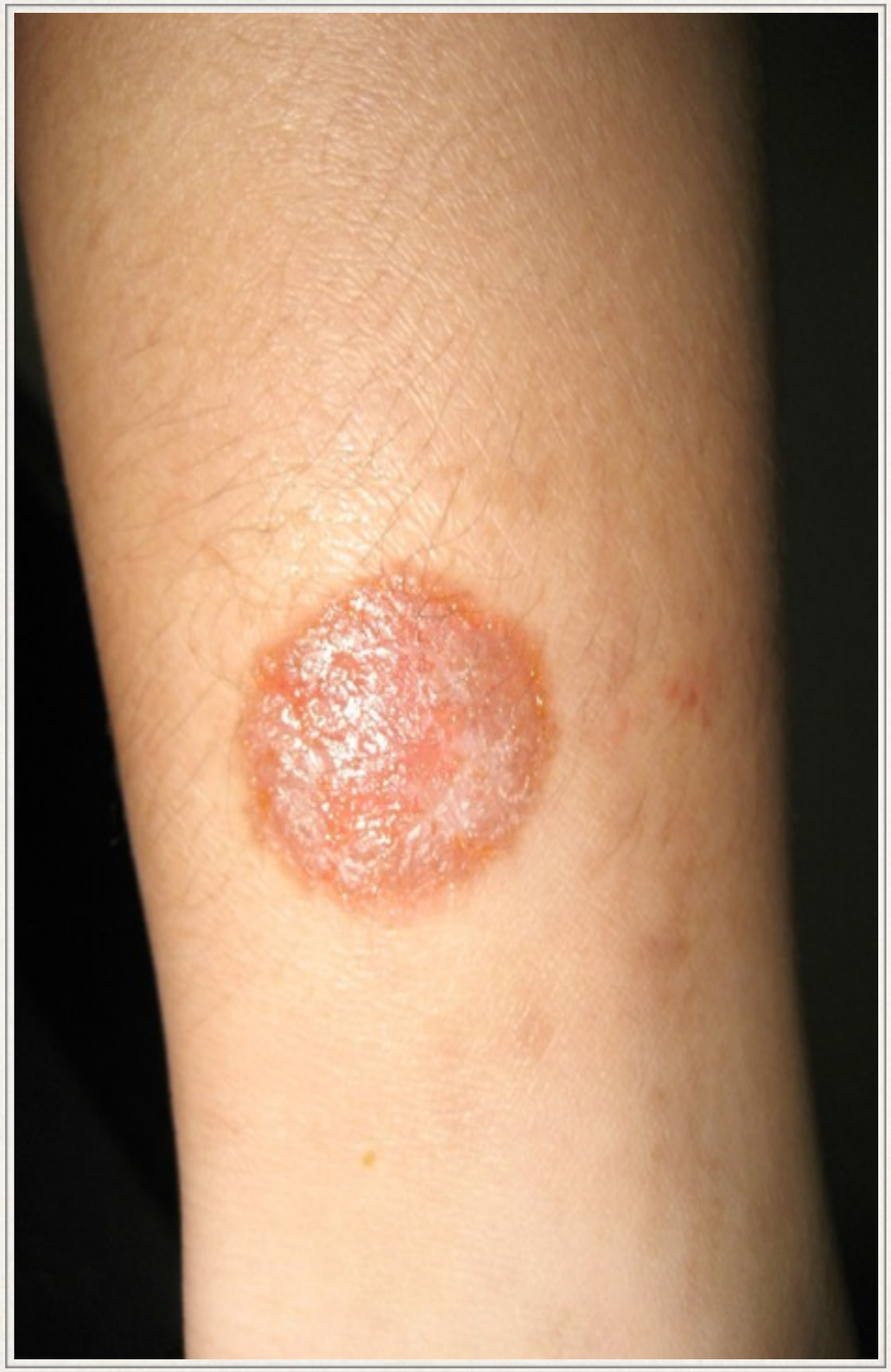
Dyshidrosis

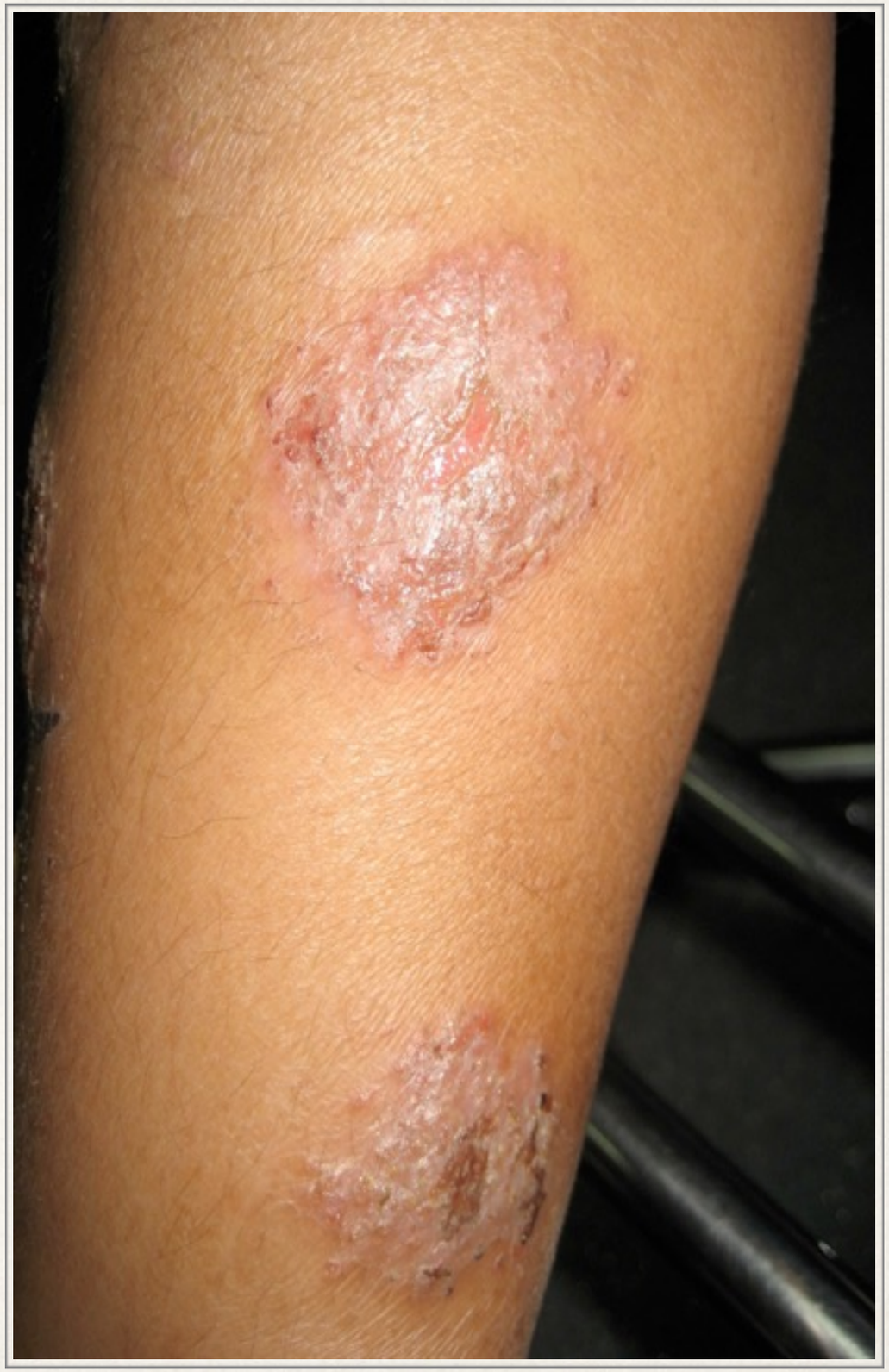
Treatment

- Wet compression
- Moderate to potent topical corticosteroids
- Antibiotics (topically or systemically) if indicated

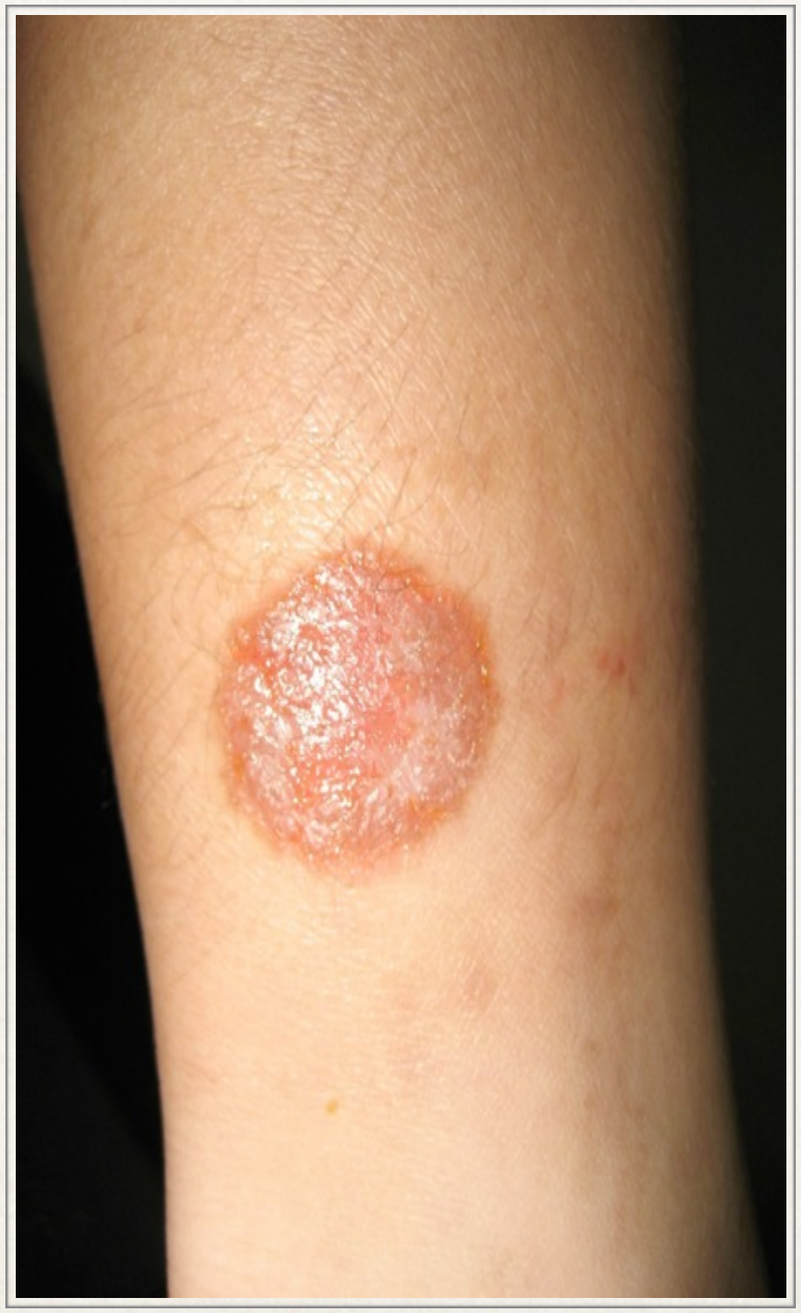


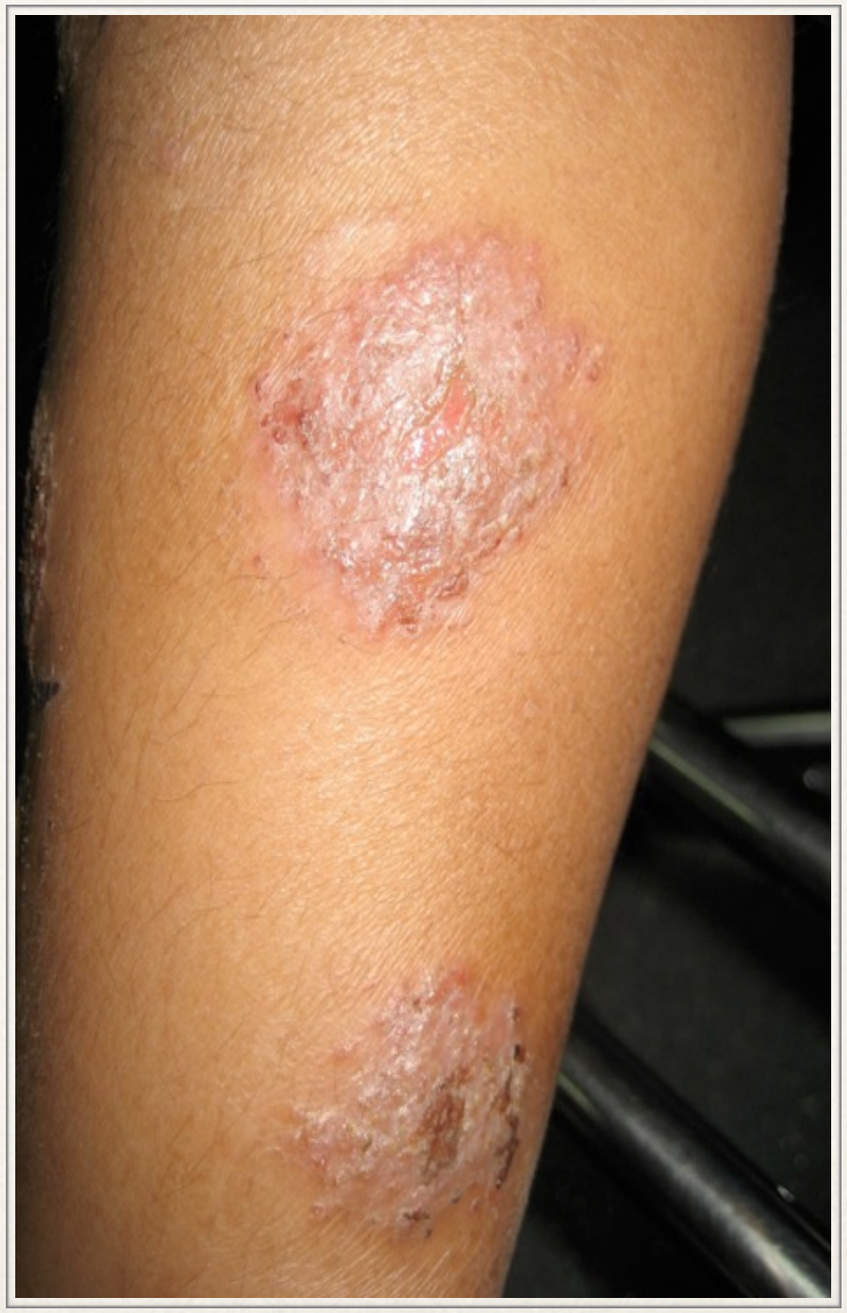






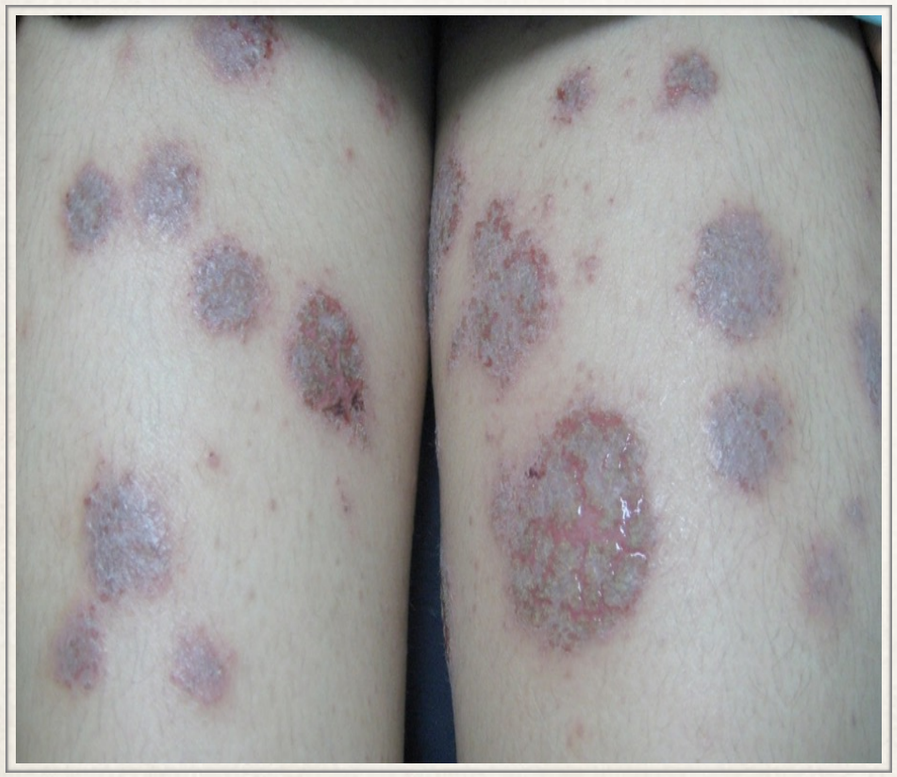
Nummular eczema

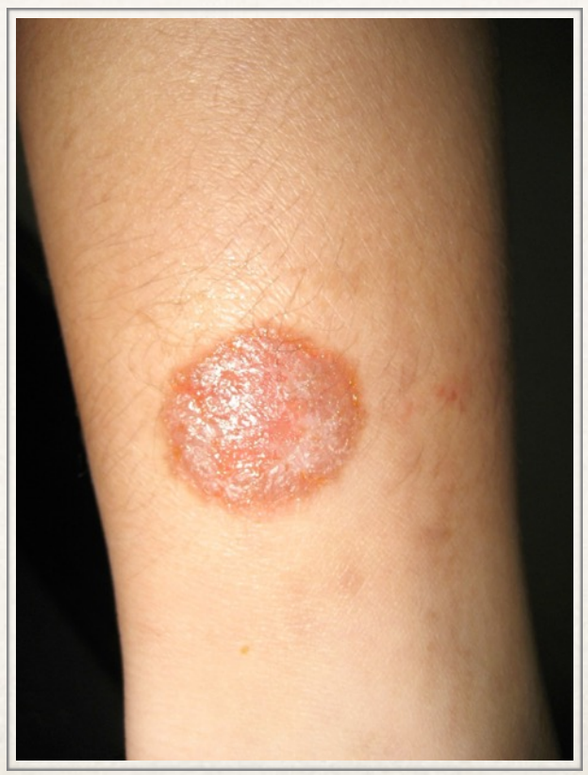


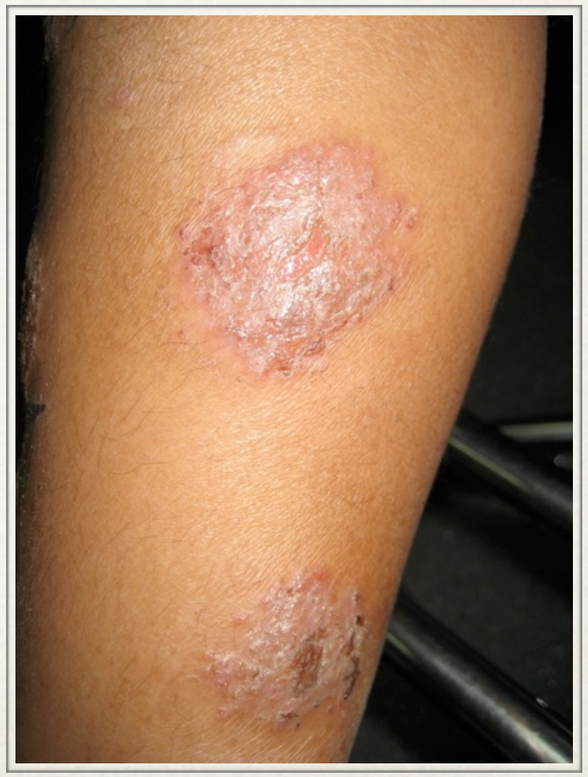


Nummular eczema

- Nummulus means "coin-like"
- Characterized by discoid or coin-shaped plaques
- Location: extensor surfaces of the hands, arms, and legs

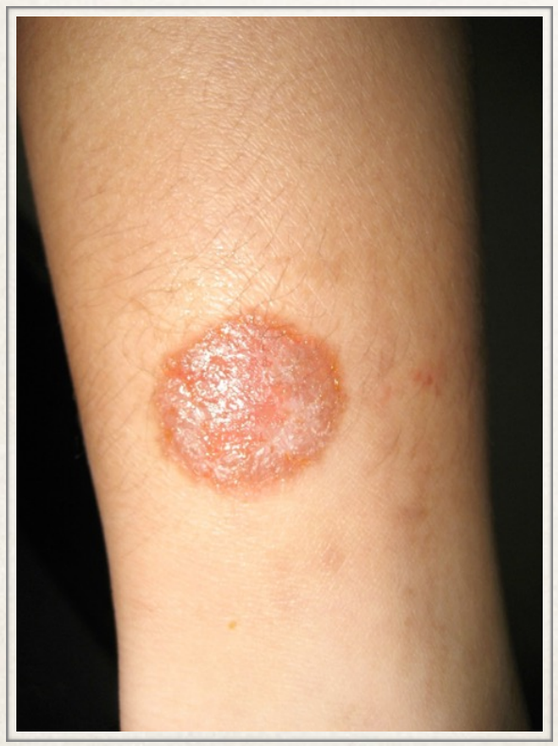


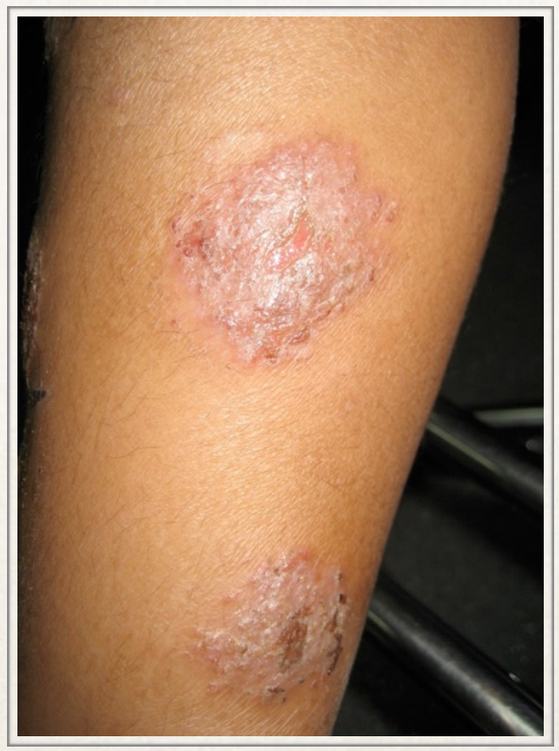


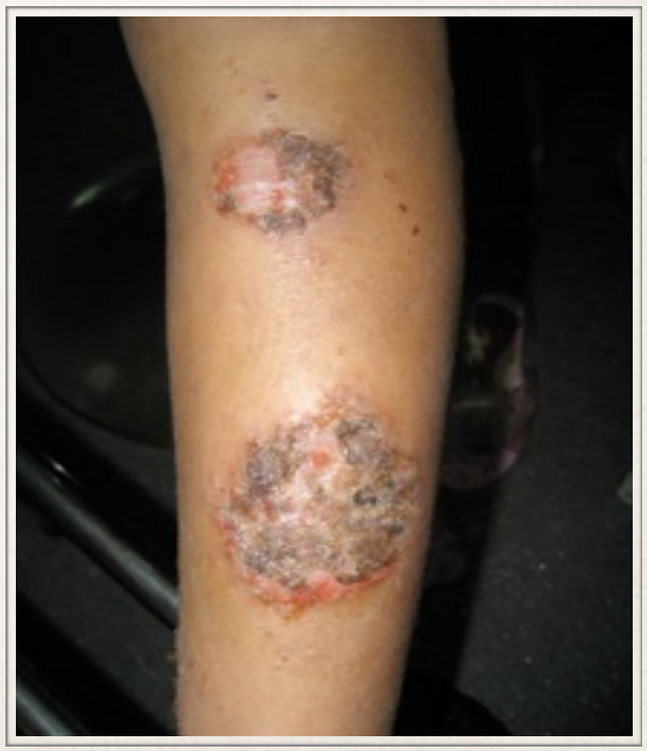


Nummular eczema

- More frequent in Atopic patient
- Usually associated with pruritus
- Secondary staphylococcal infection is common



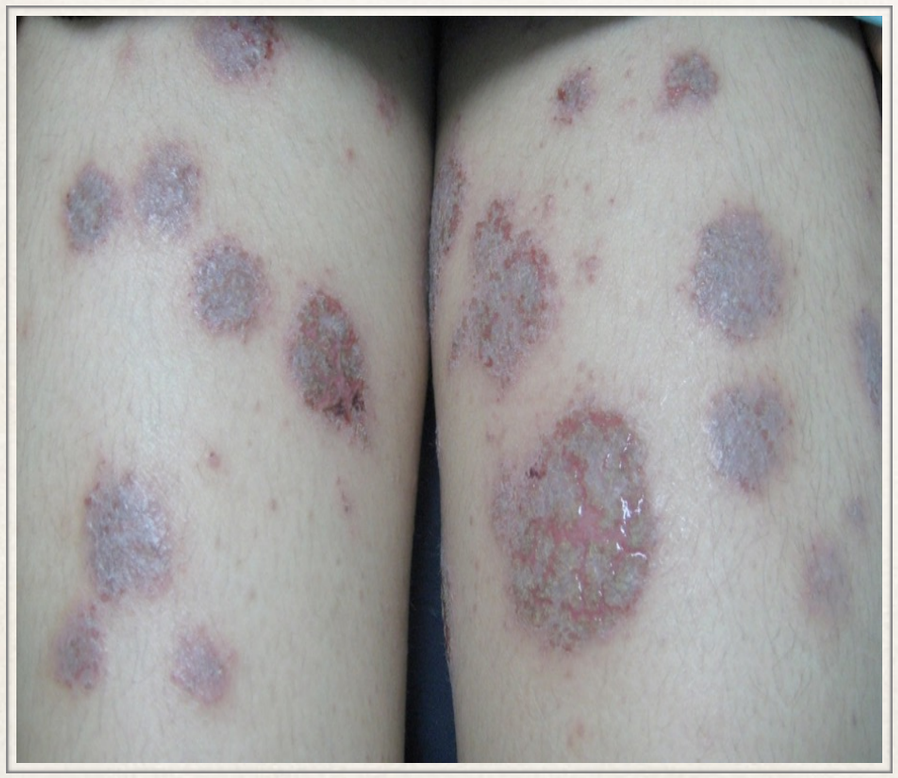


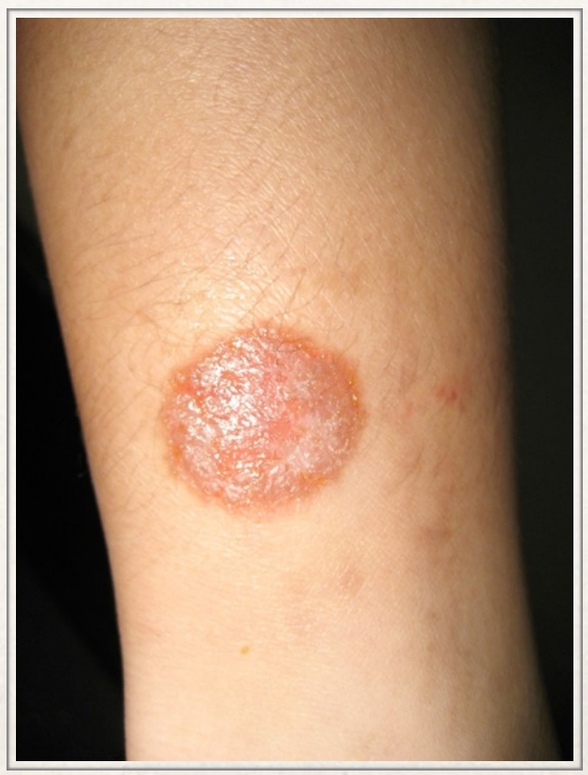


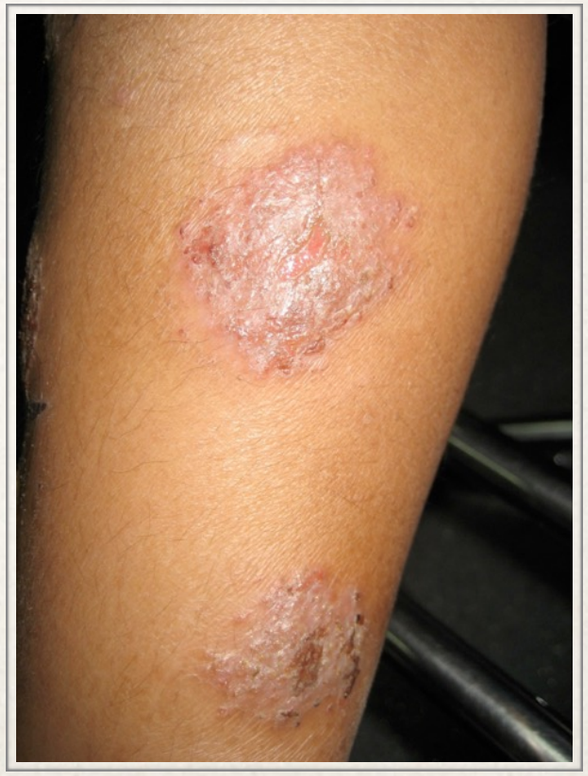
Nummular eczema

Treatment

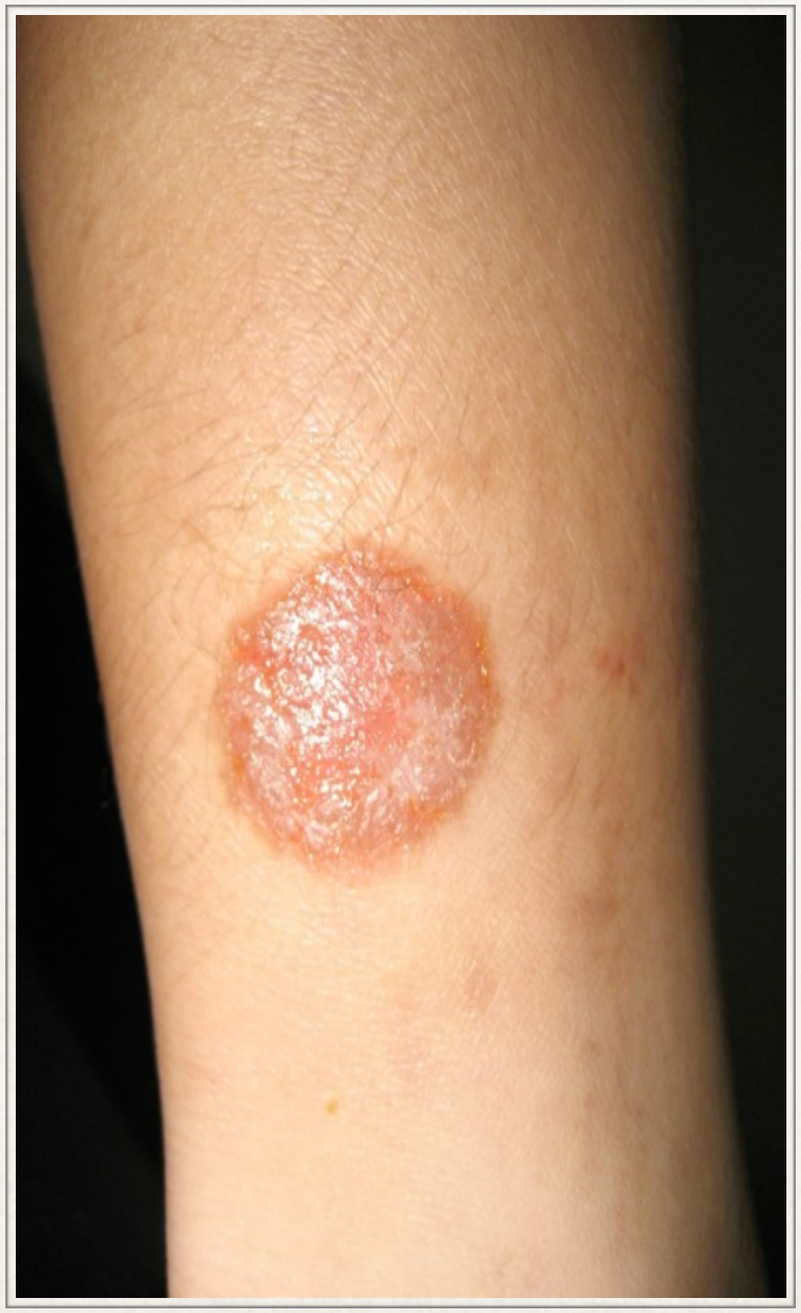
- Wet dressing
- Moderate to potent topical corticosteroids
- Topical or systemic ATB if indicated

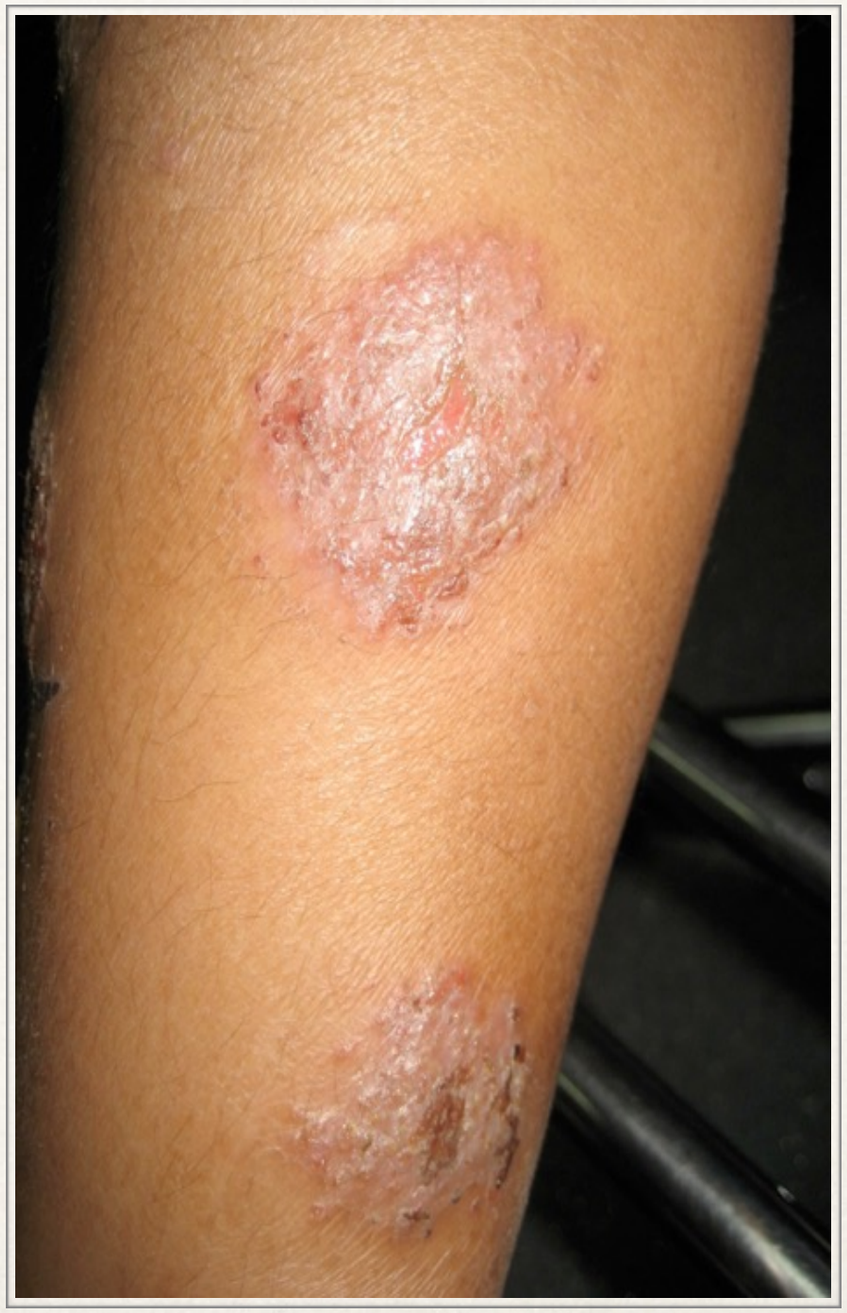


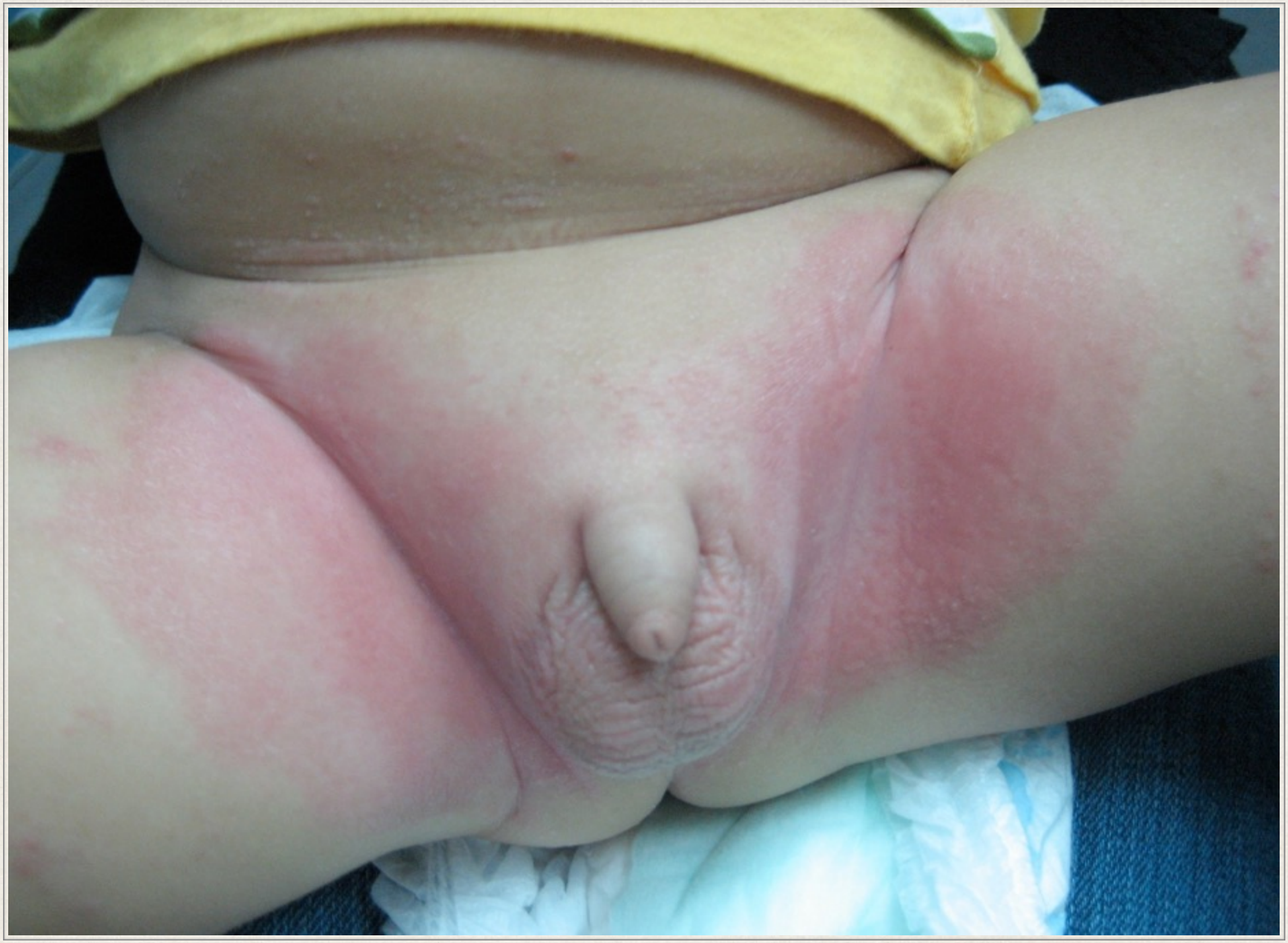


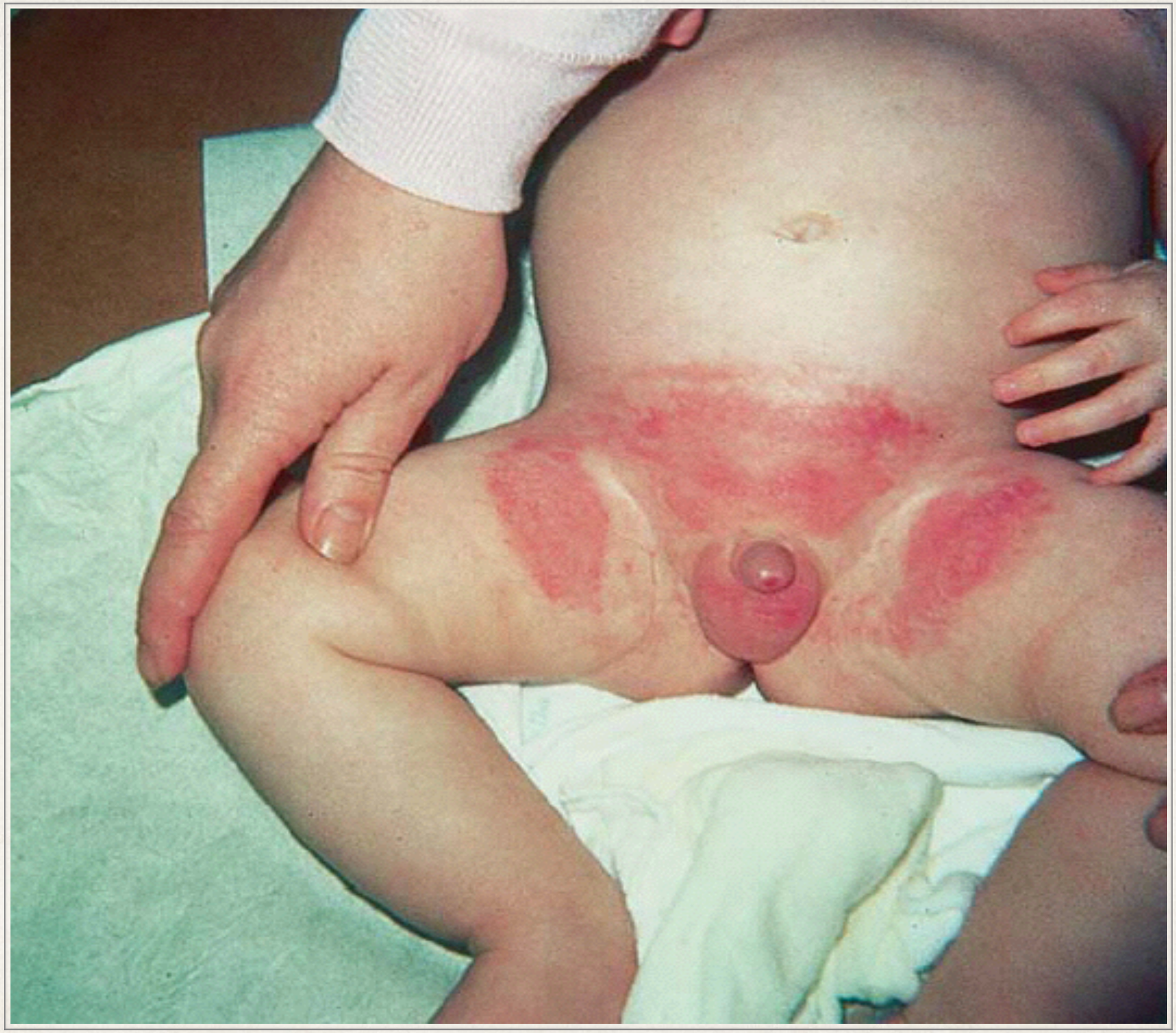


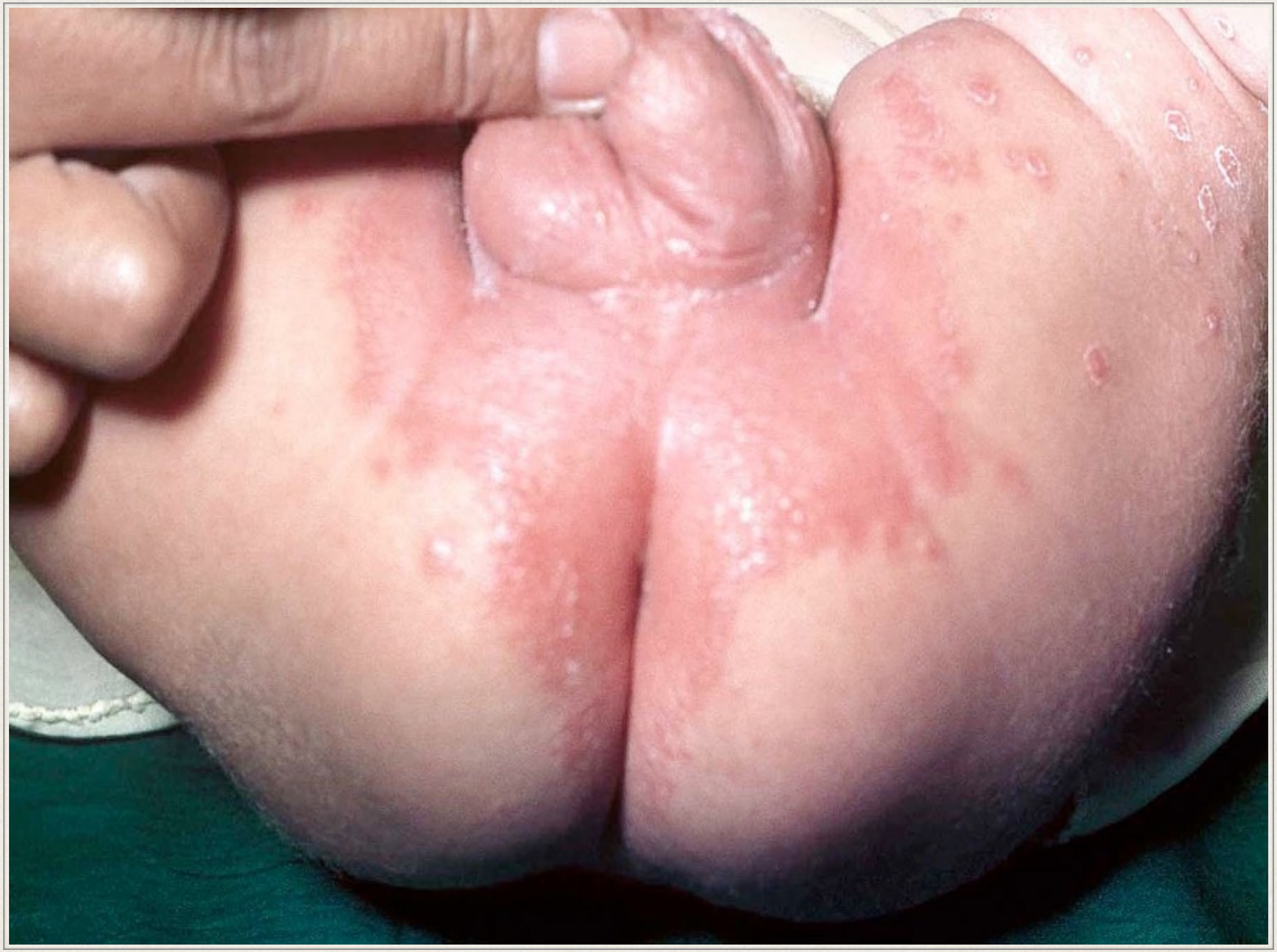
Nummular eczema

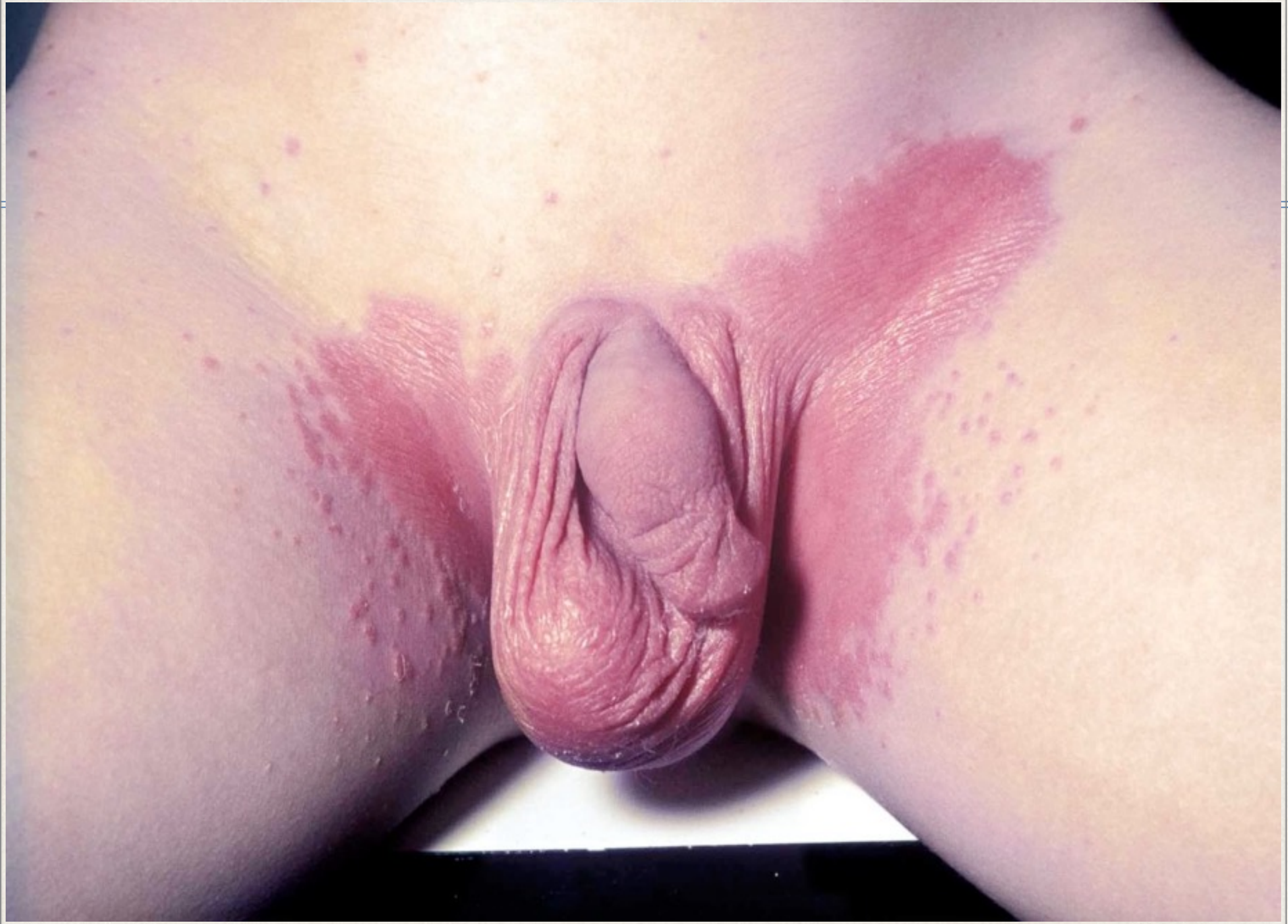










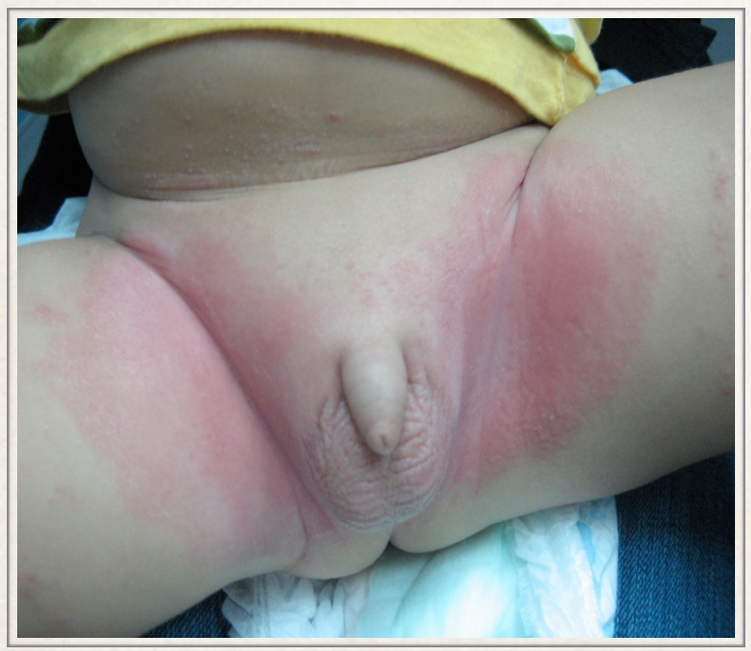


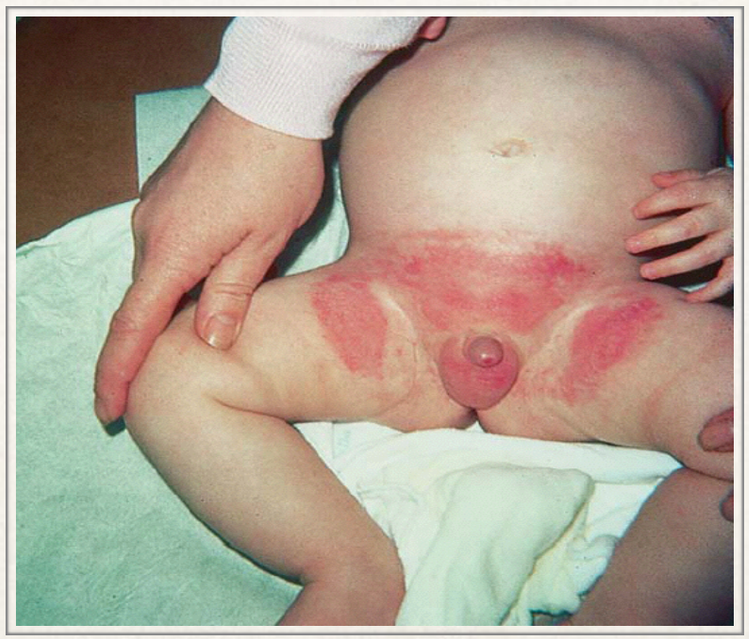
Diaper dermatitis

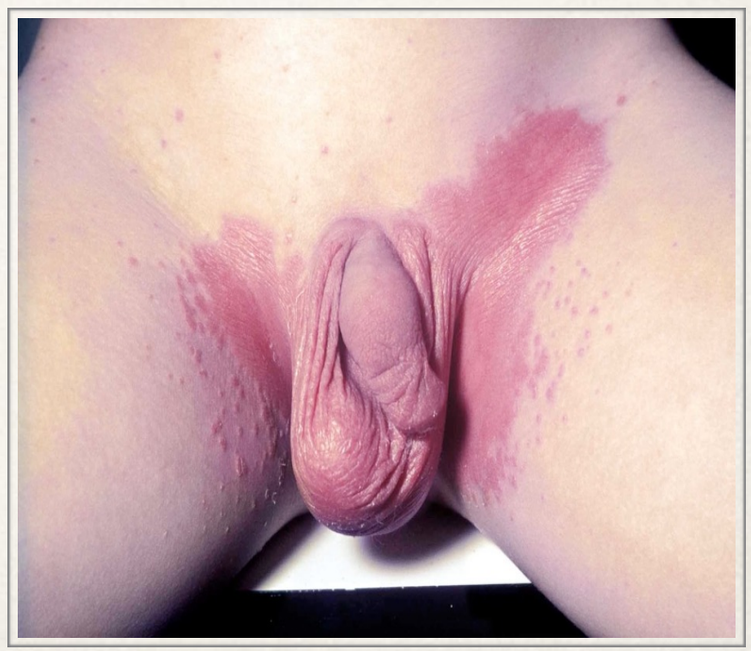
- Inflammatory skin reaction

  --- in the areas covered by the diaper

- Peak incidence at 9-12 months of age



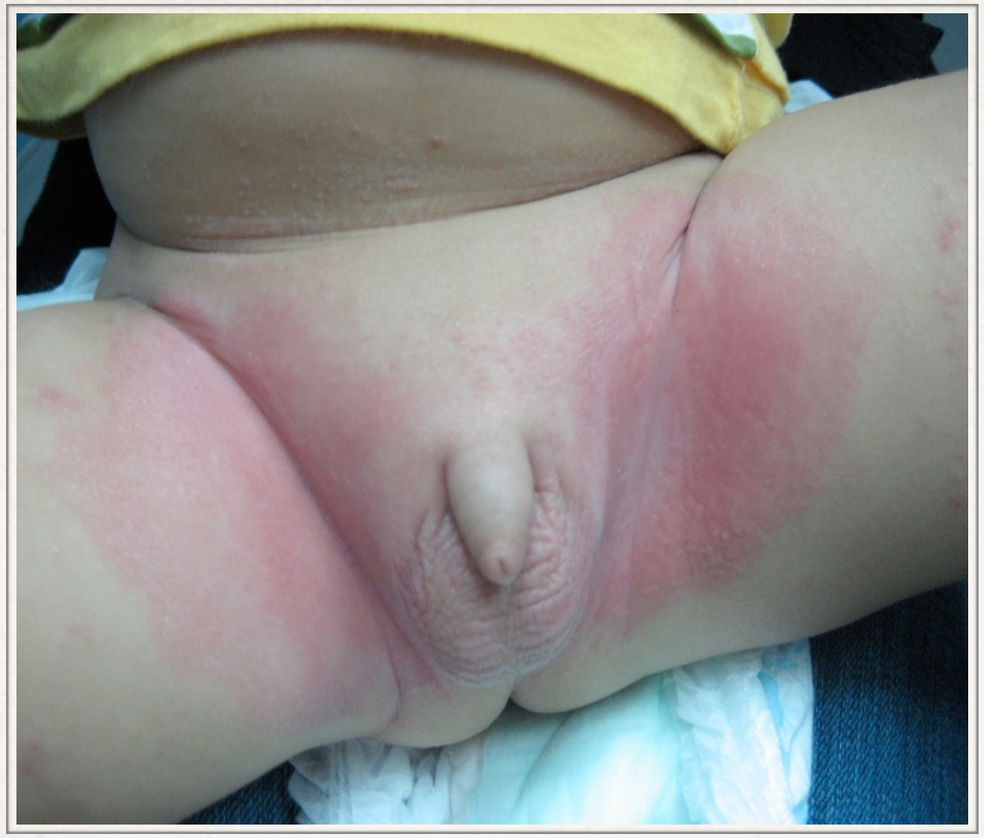


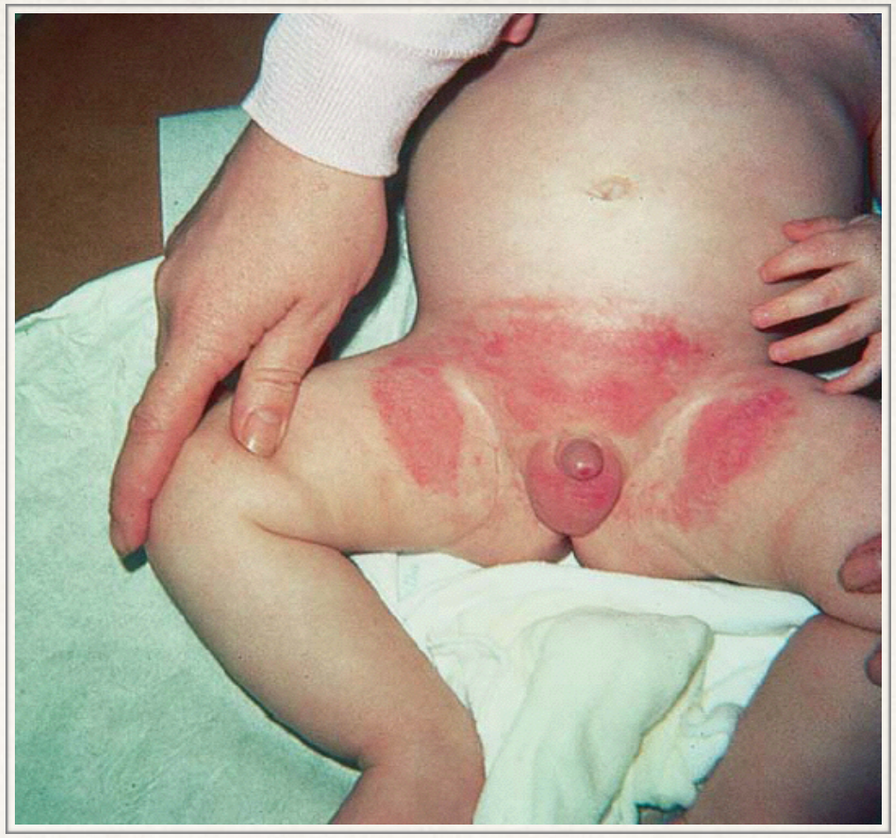


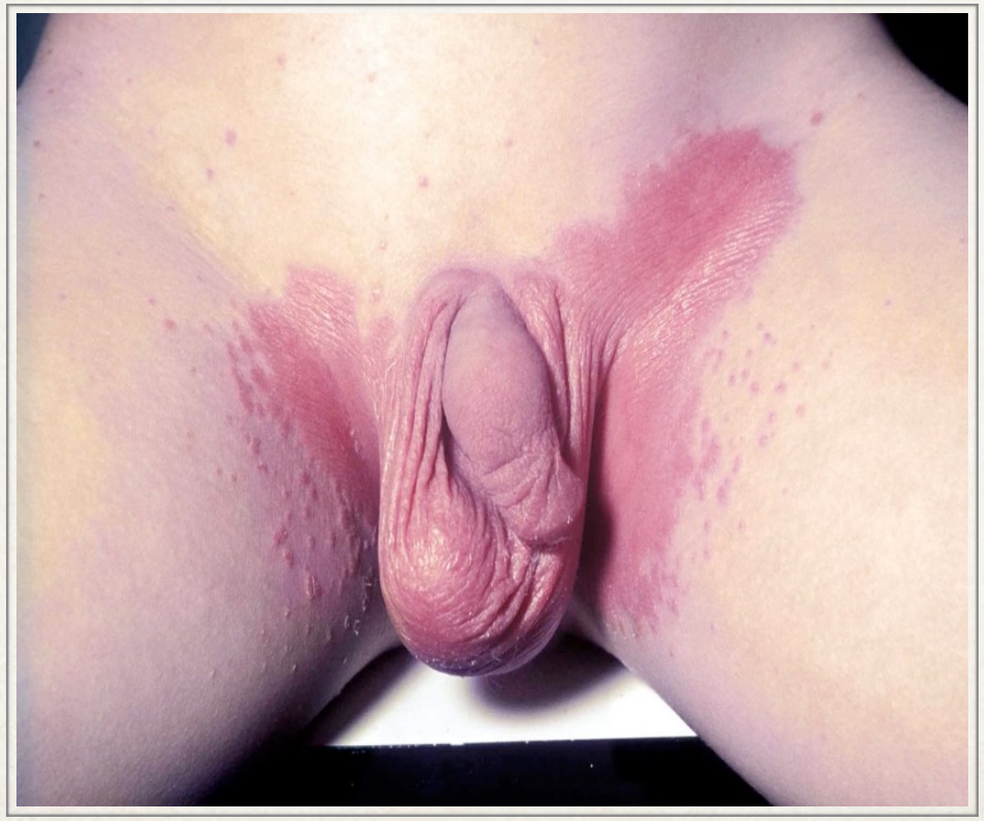
Diaper dermatitis

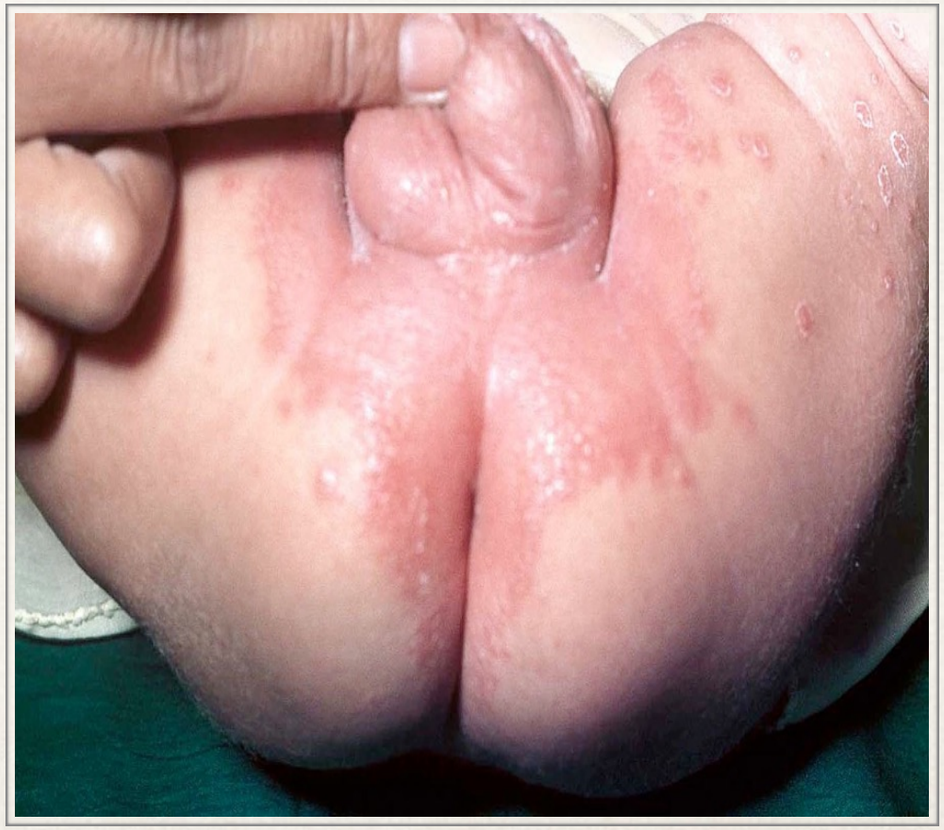
Differential diagnosis

- Irritant contact dermatitis
- Intertrigo
- Candidiasis
- Miliaria
- Seborrheic dermatitis / Atopic dermatitis / Psoriasis
- Langerhans cell histiocytosis
- Burns / Child abuse
- Epidermolysis bullosa
- Congenital syphilis
- Nutritional deficiency
  (acrodermatitis enteropathica-Zinc, Biotin)





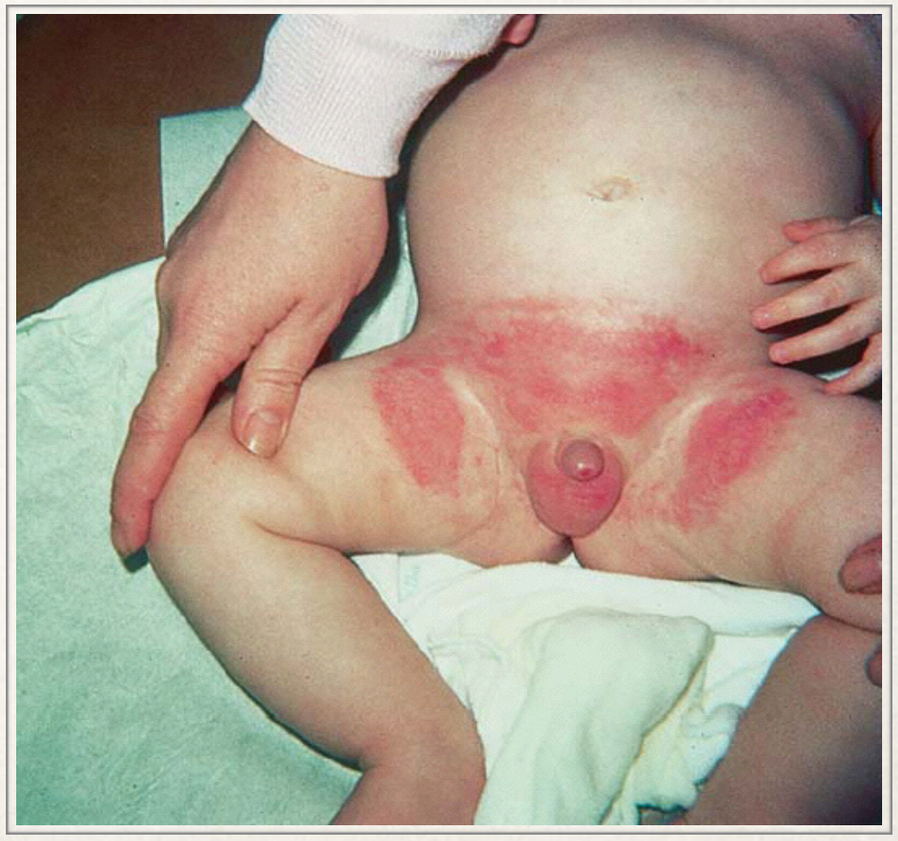


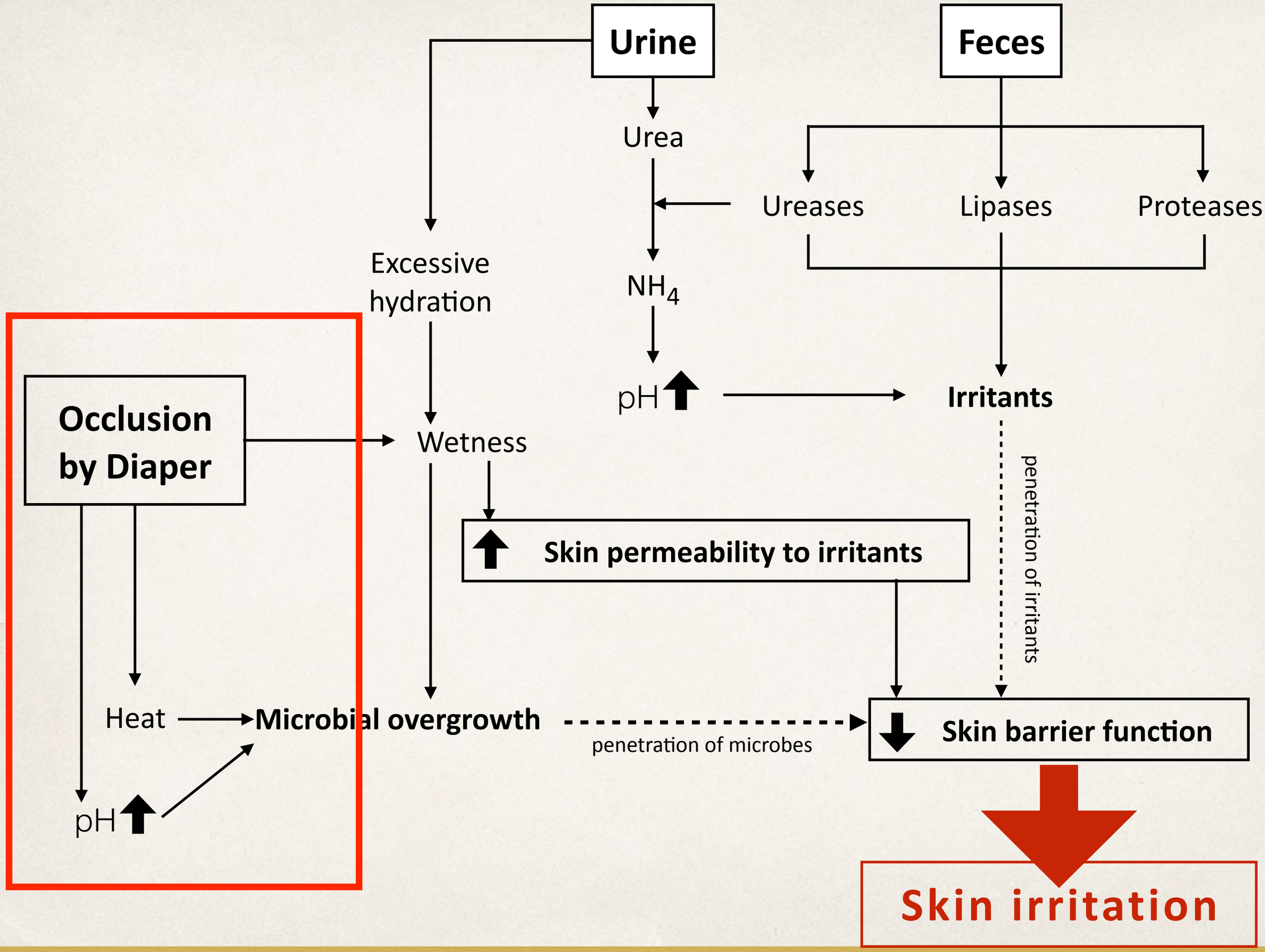


Irritant diaper dermatitis

convex surfaces of the buttocks, vulva, perineal area, lower abdomen, and proximal thighs
sparing of the intertriginous creases

- Etiology --- multifactorial
- Wetness increases the permeability of the skin to irritants
- Frictional damage
- Increase in skin pH
- Fecal proteases and lipases: major irritants




Urine
Feces
Urea
Ureases
Lipases
Proteases
Excessive hydration
NH_4
pH
Irritants
Occlusion by Diaper
Wetness
penetration of irritants
Skin permeability to irritants
Heat
Microbial overgrowth
penetration of microbes
Skin barrier function
pH
Skin irritation

Irritant diaper dermatitis

Treatment

- Good routine skin care/ Gentle cleansing
- Frequent diaper changes
- Regular use of barrier preparation:

  reduce friction, wetting, contact with feces and urine
- Moderate to severe inflammation —> topical steroids
- Treat 2nd infection; candidiasis

Intertrigo

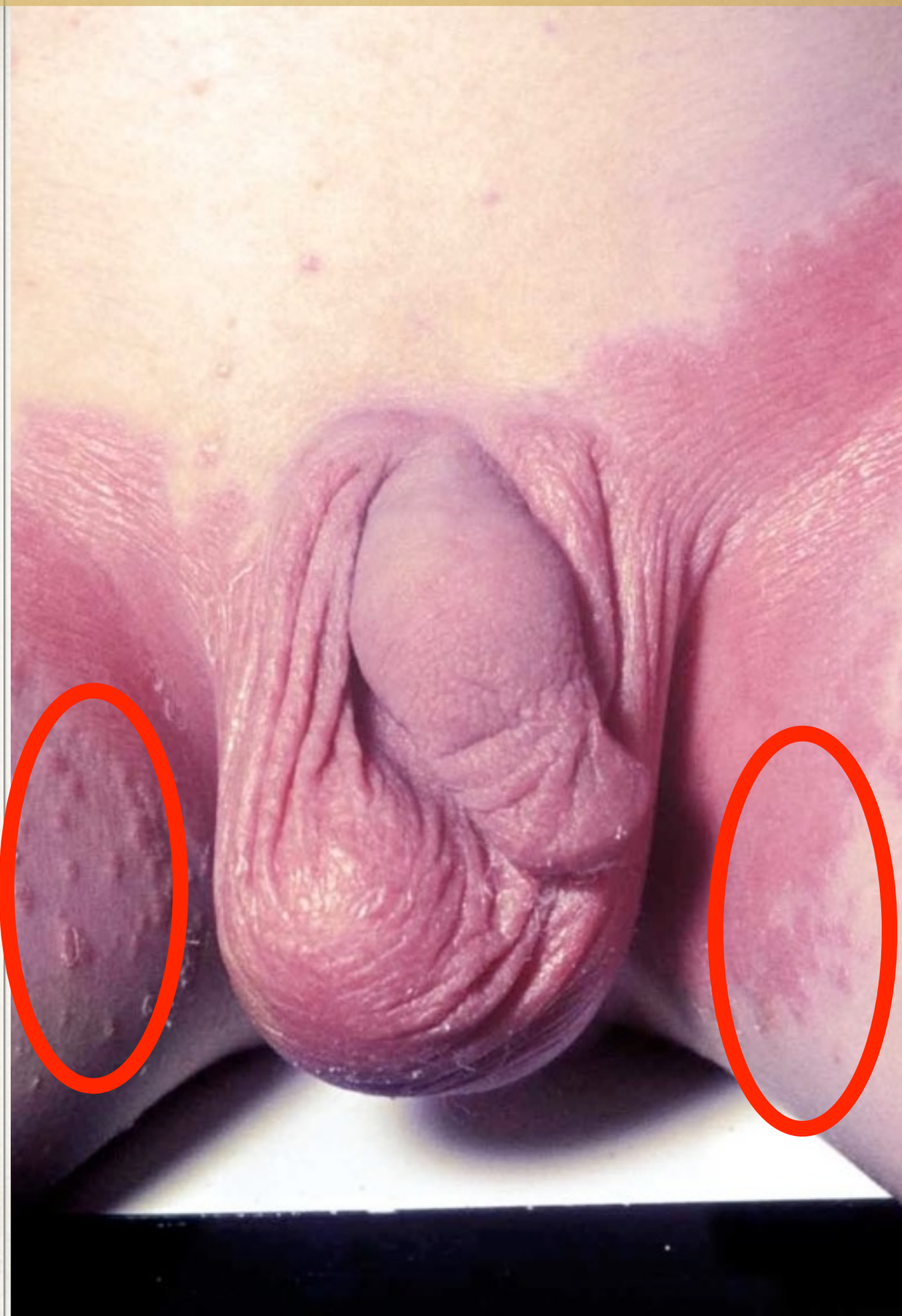
- Superficial inflammatory dermatitis occurs in areas where the skin is in **apposition**

Intertrigo

- Result of friction, heat, moisture erythematous, macerated patch
- Treatment:
  - Eliminate macerated skin
  - Open wet compression
  - Topical corticosteroid lotion

Candida diaper dermatitis

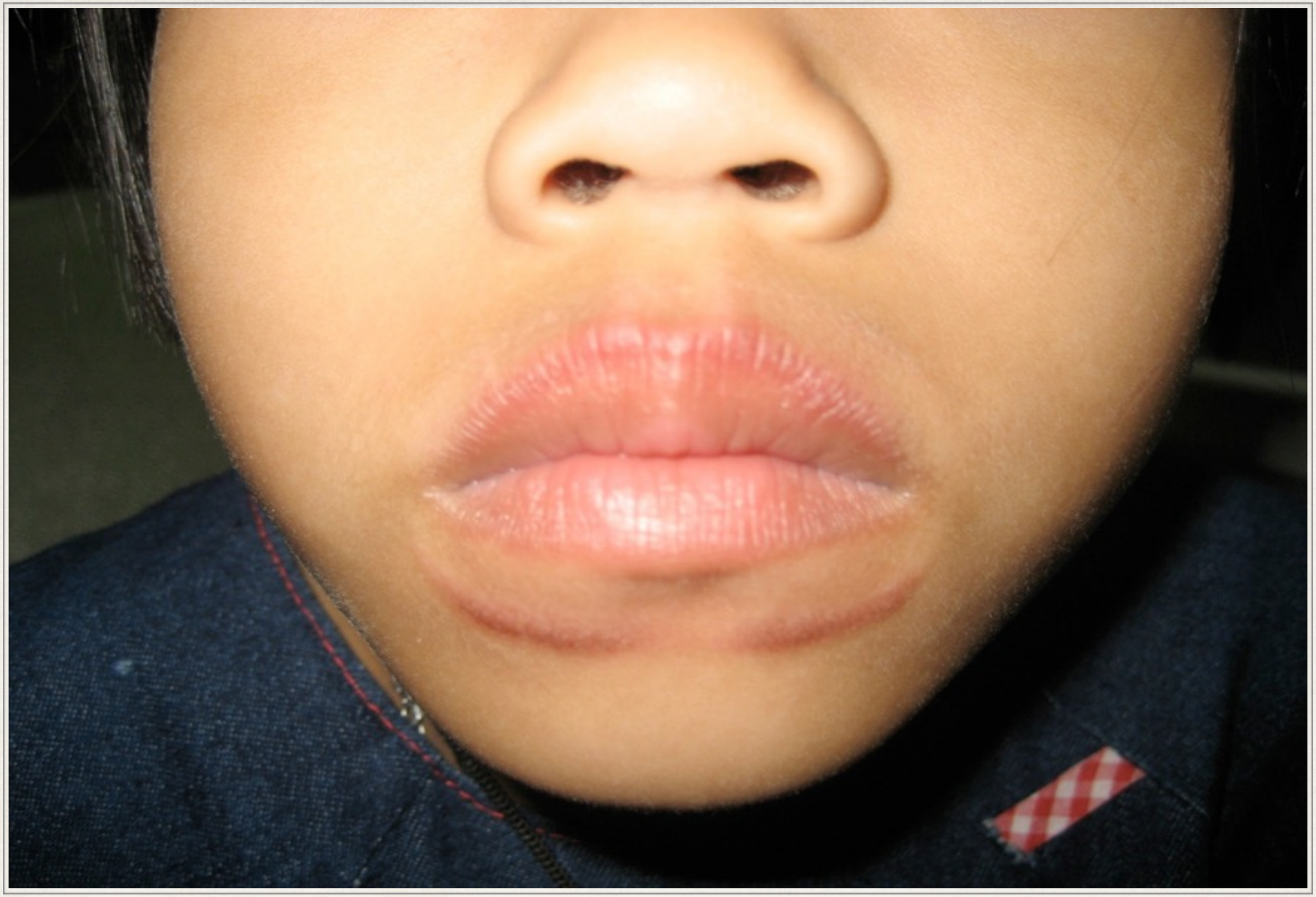
- Suspected whenever a diaper rash fails to respond to usual therapeutic measures
- Characteristic features:
  Raised edge, sharp marginization
  white scales at the border,
  pinpoint pustulovesicular
  satellite lesions
- Treatment
  Protective strategy
  Antifungal therapy



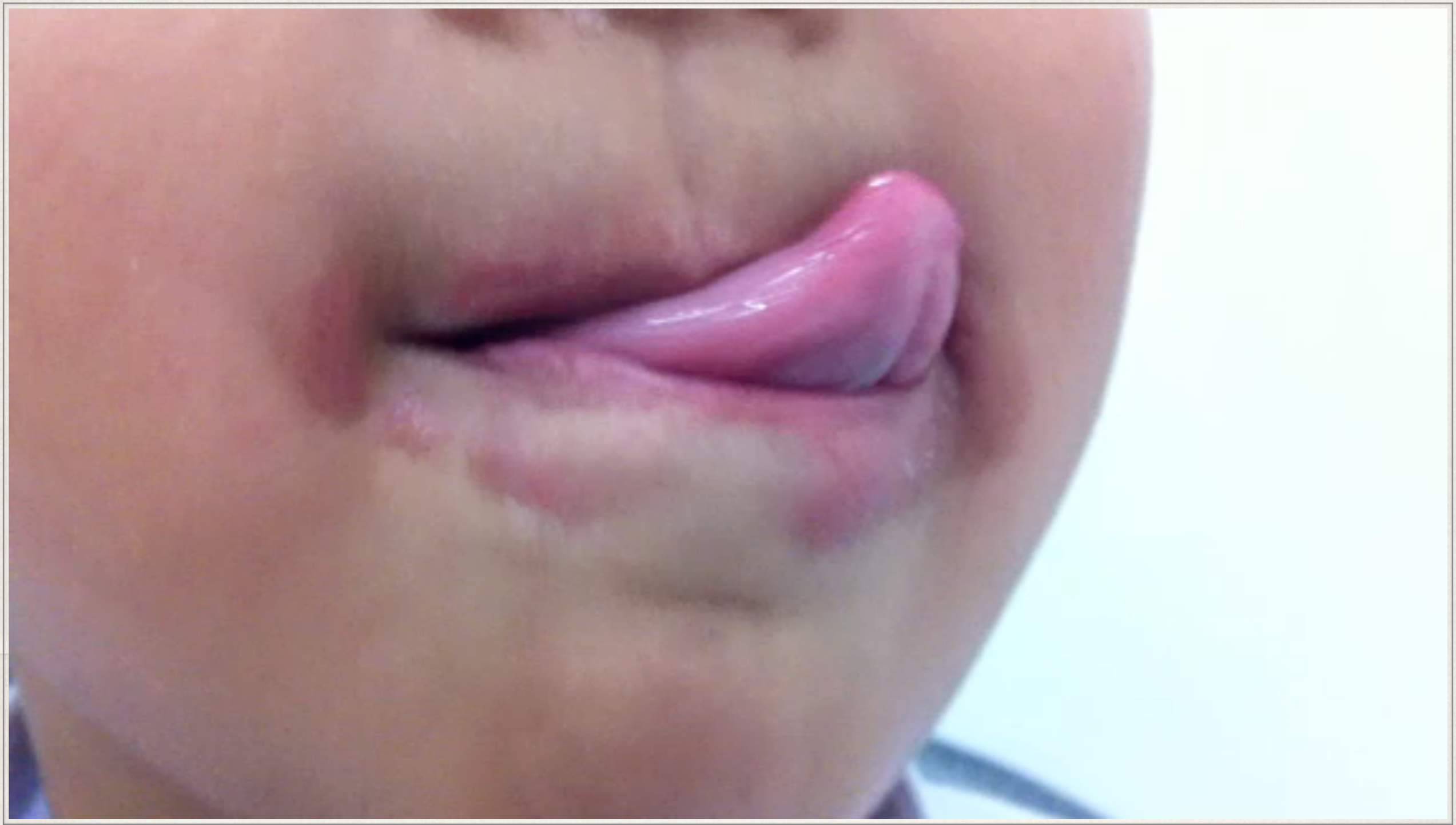
Contact dermatitis

Contact dermatitis

Irritant contact dermatitis	Allergic contact dermatitis
Affect all	Affect anyone who are susceptible
Produced by irritating substance	Allergic response to sensitizing substance
Occur on 1st exposure	Occur when continued or repeated exposure
Irritation, not immunologic	Type IV allergic reaction



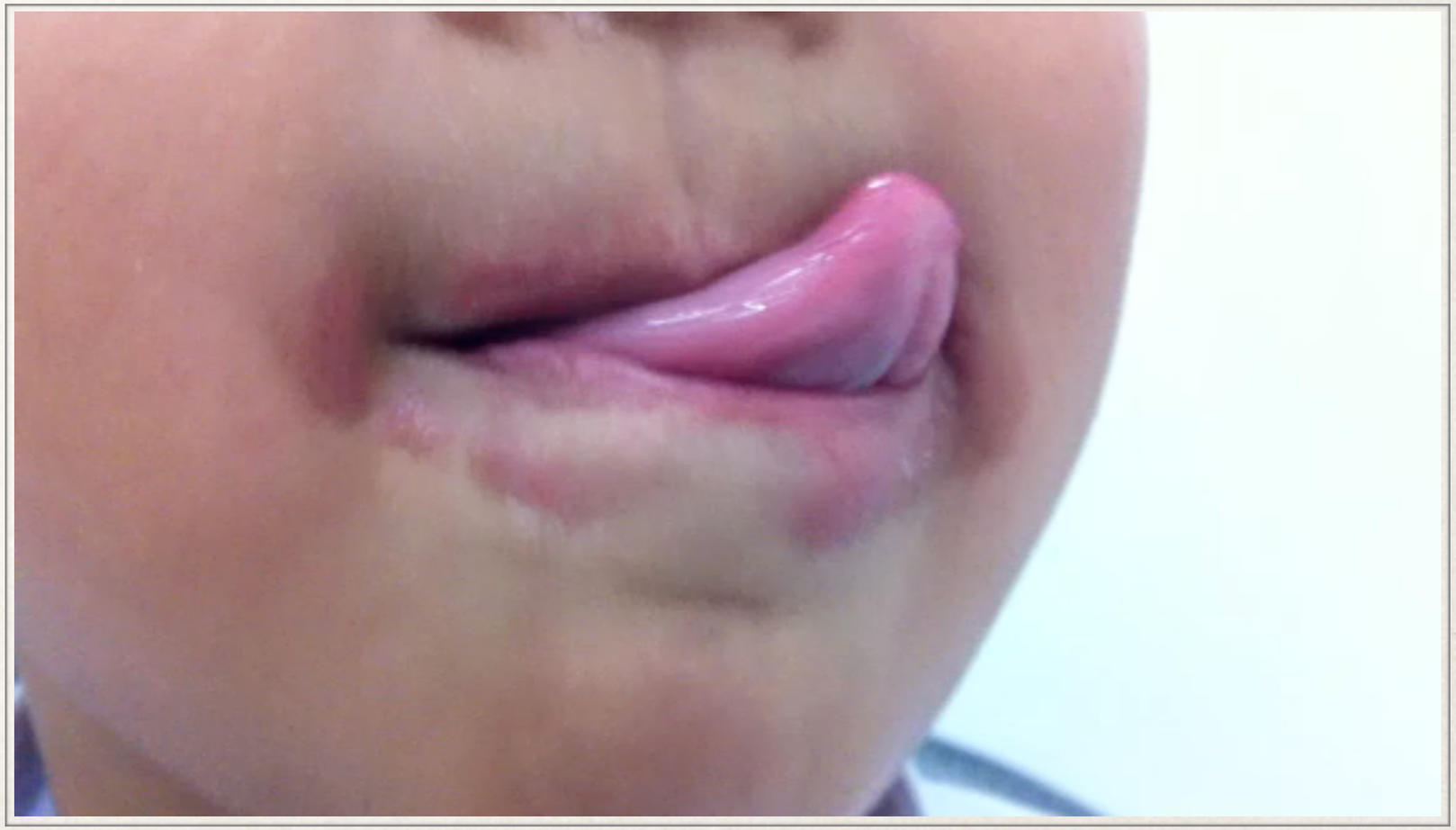
Lip licking’s dermatitis



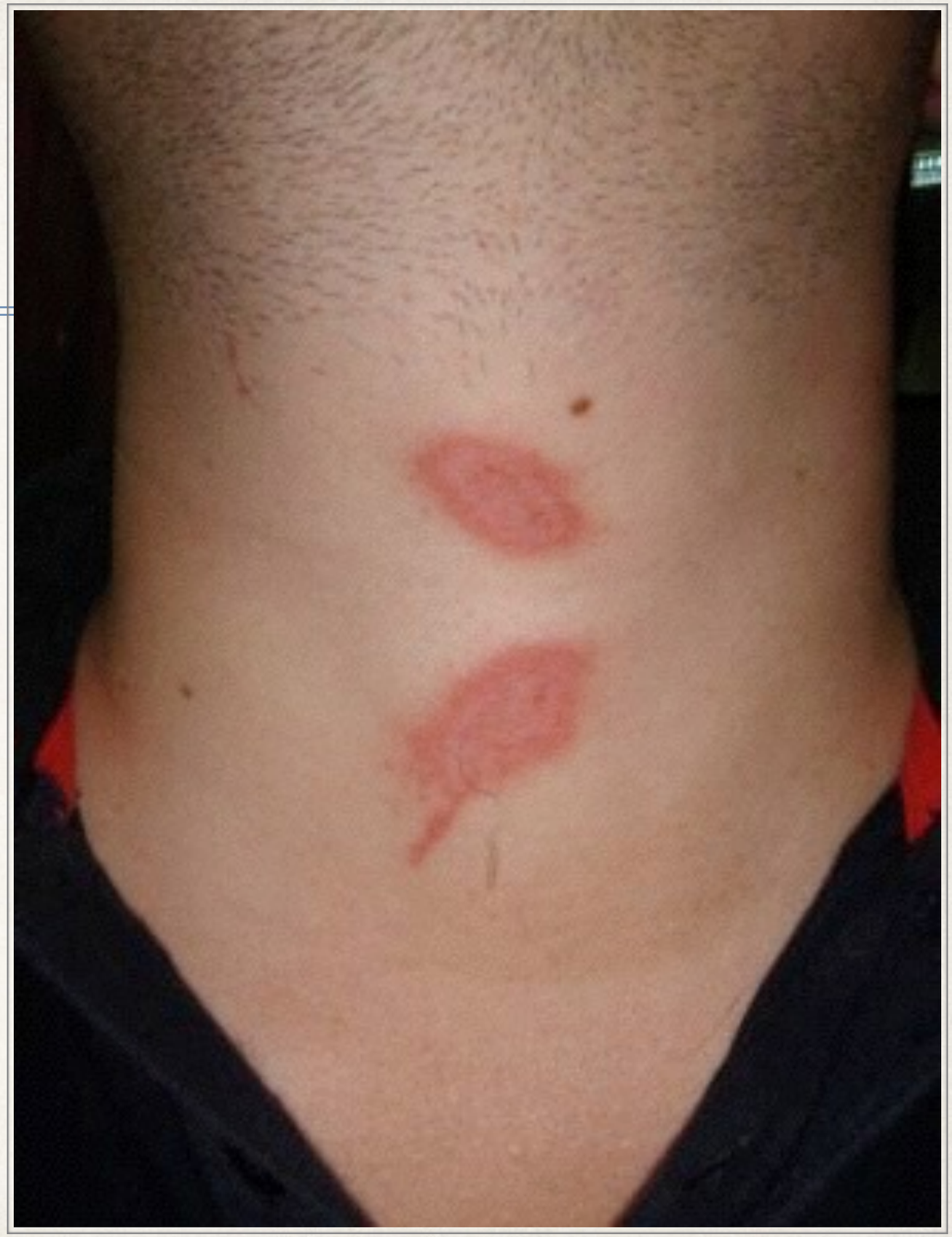
Lip lick dermatitis

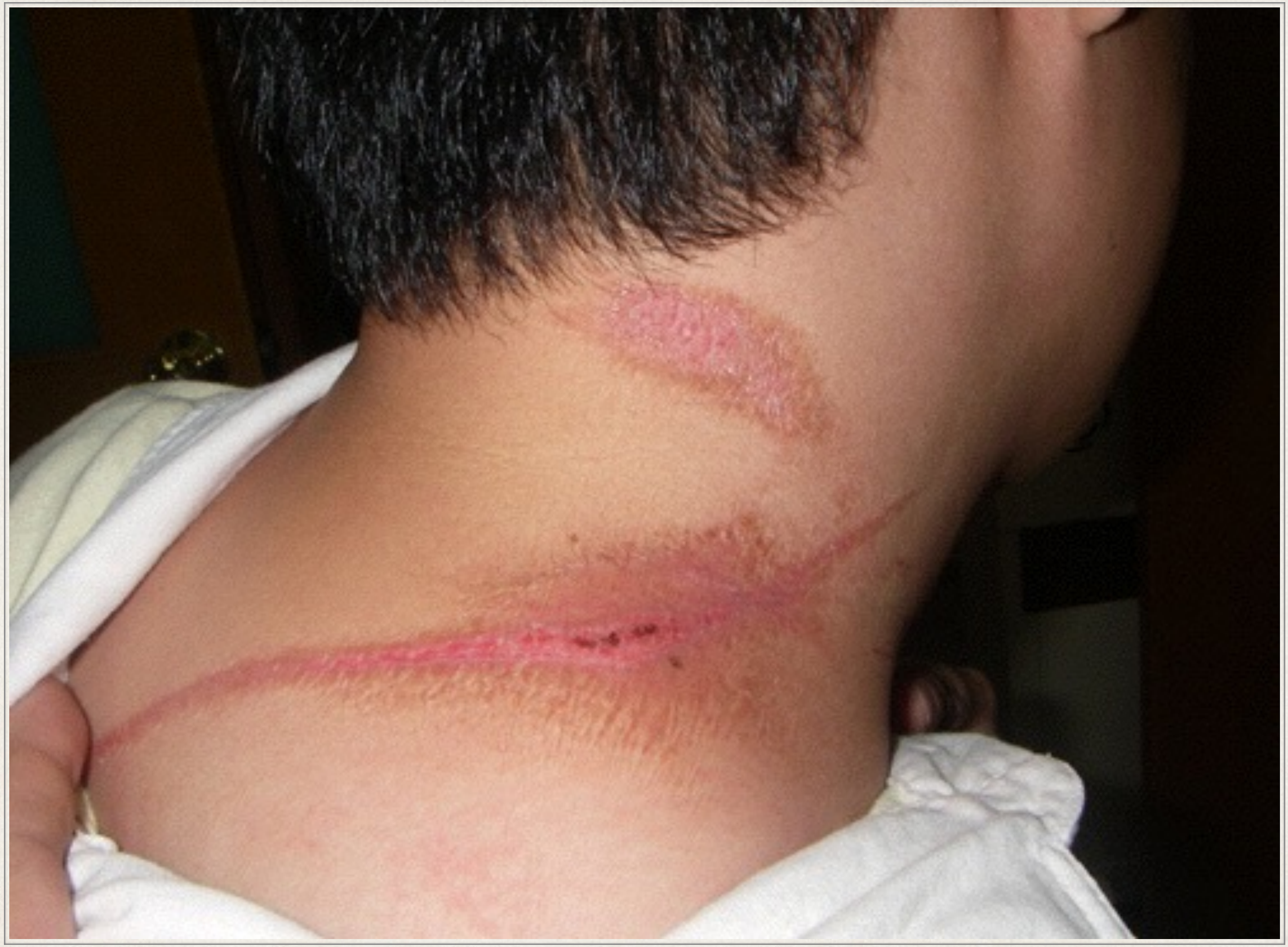
Treatment???

Stop licking !!!



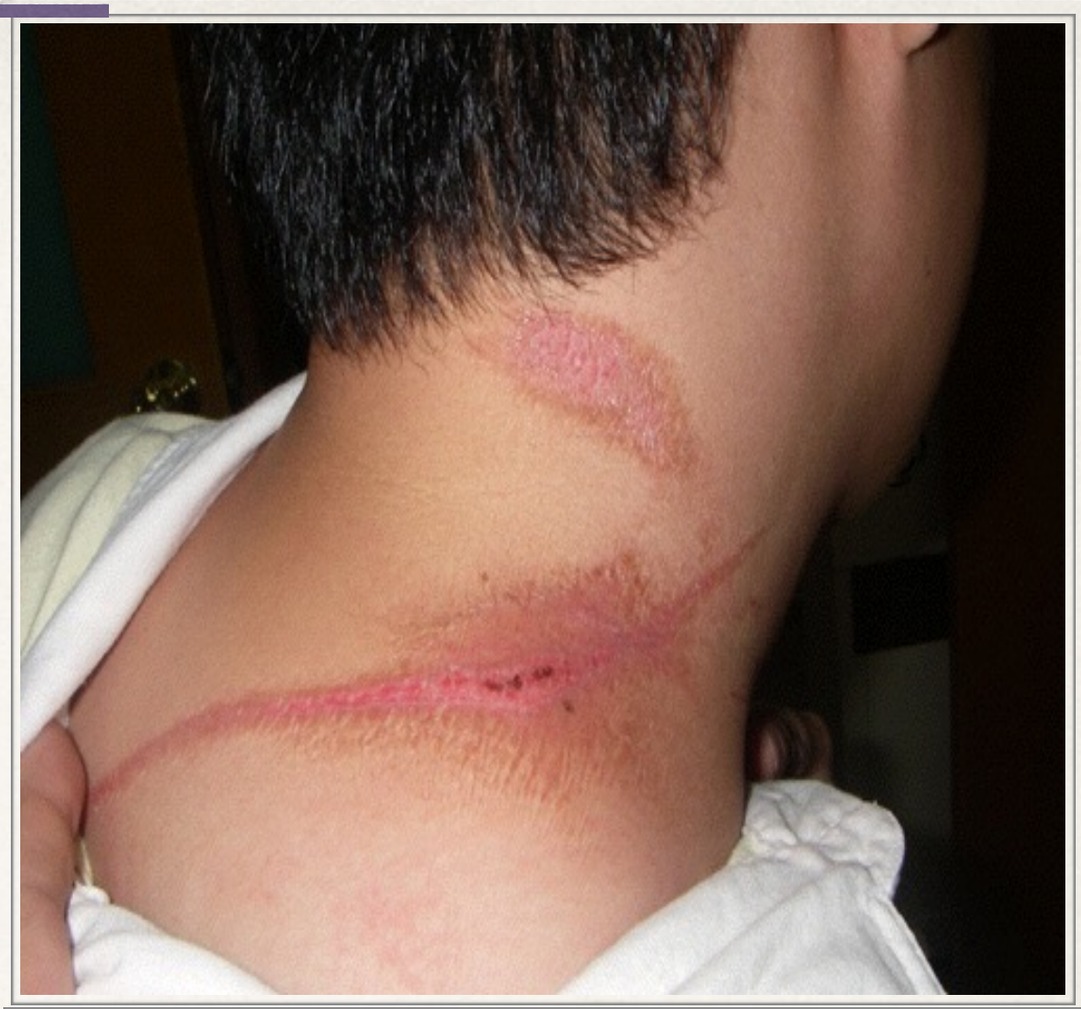
Paederus dermatitis

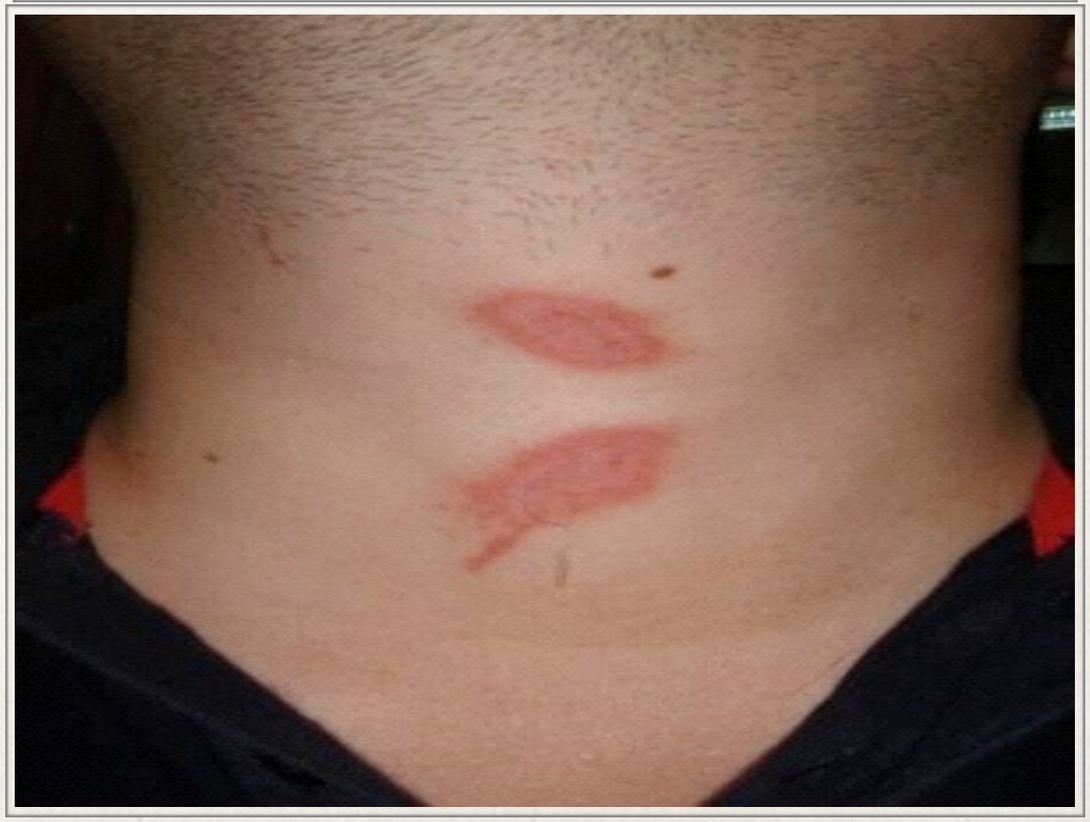




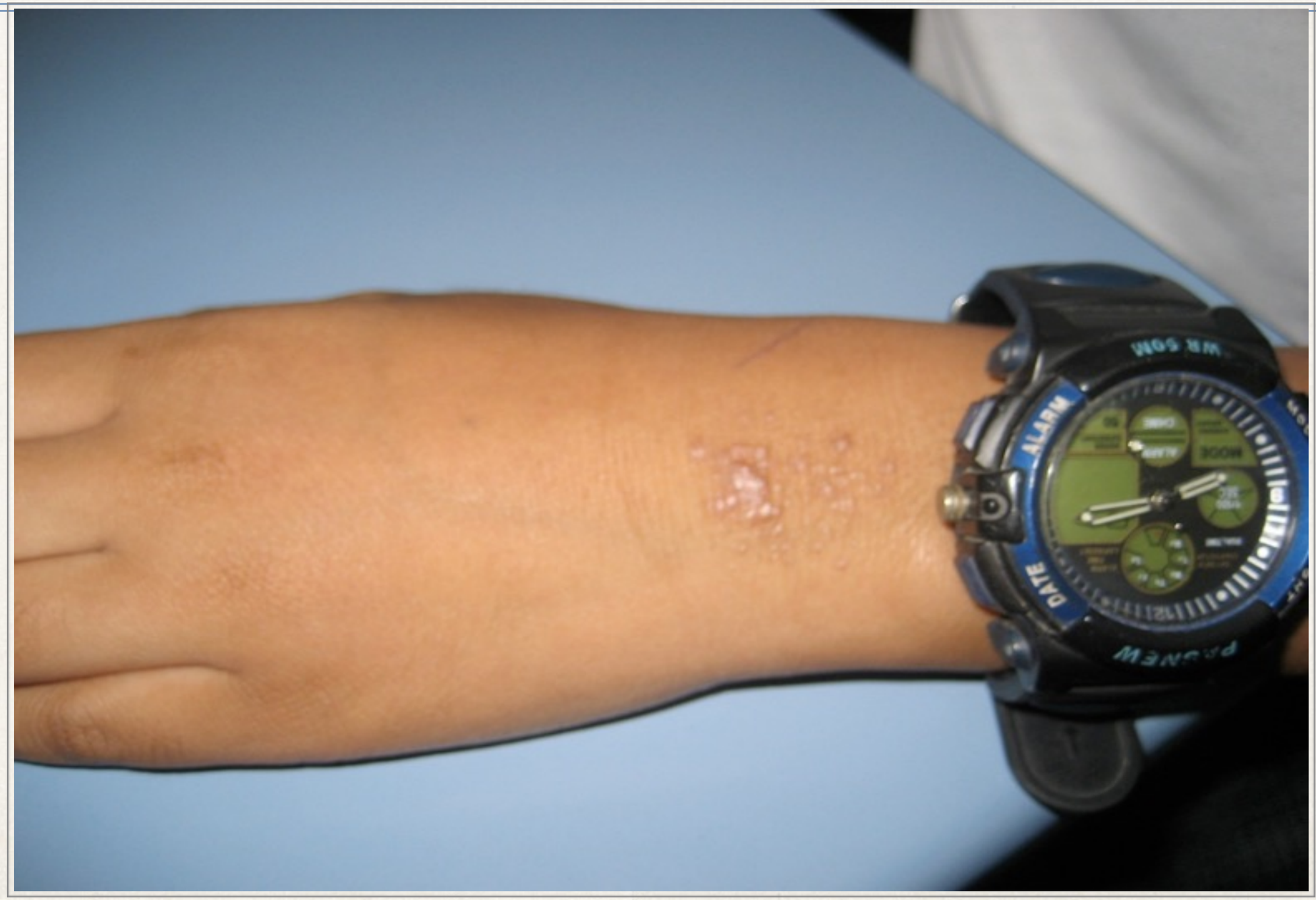
Paederus dermatitis

- Irritant contact dermatitis
  - Kissing lesions
  - Burning sensation
- Treatment
  - Wet dressing
  - Topical steroids

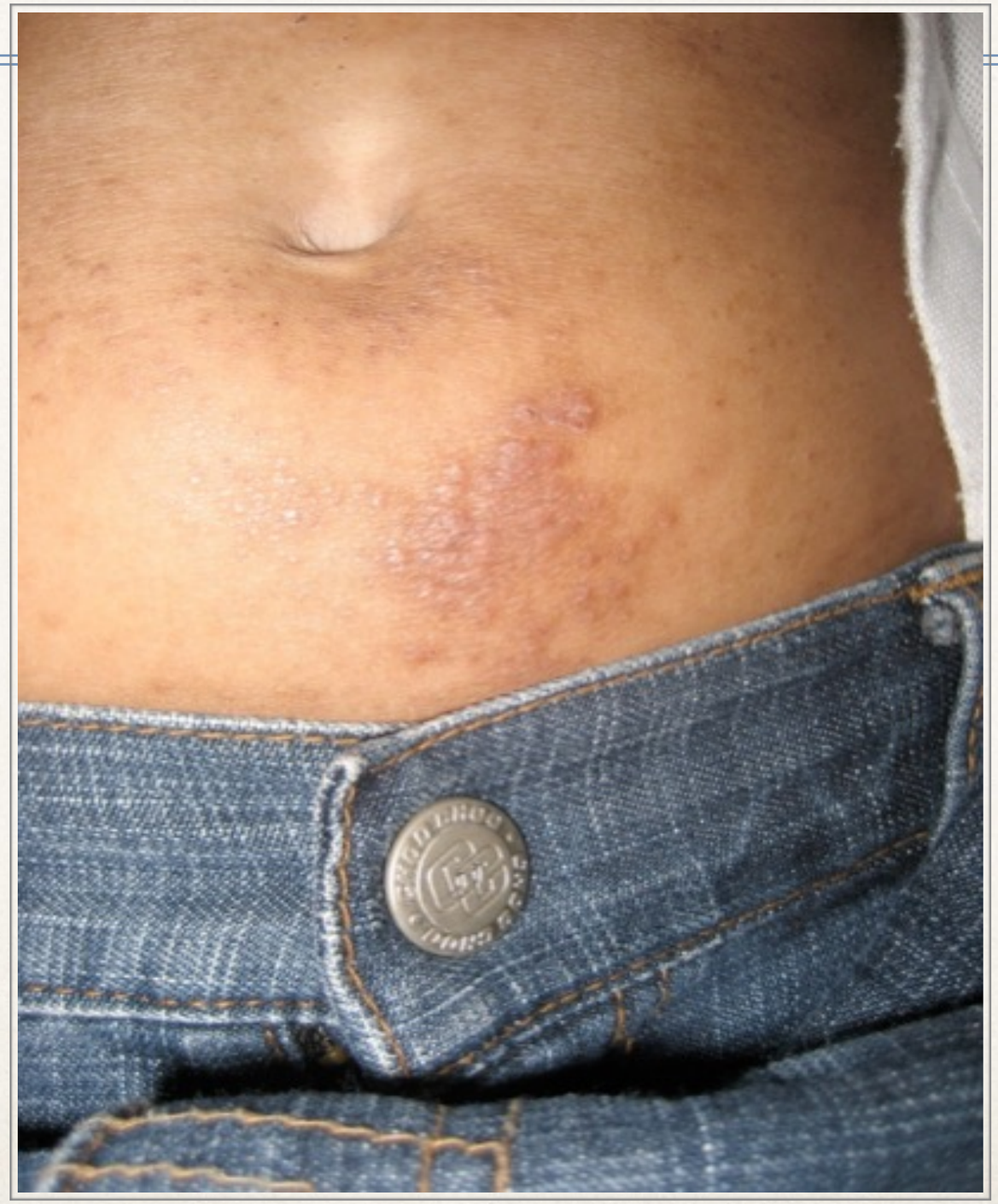


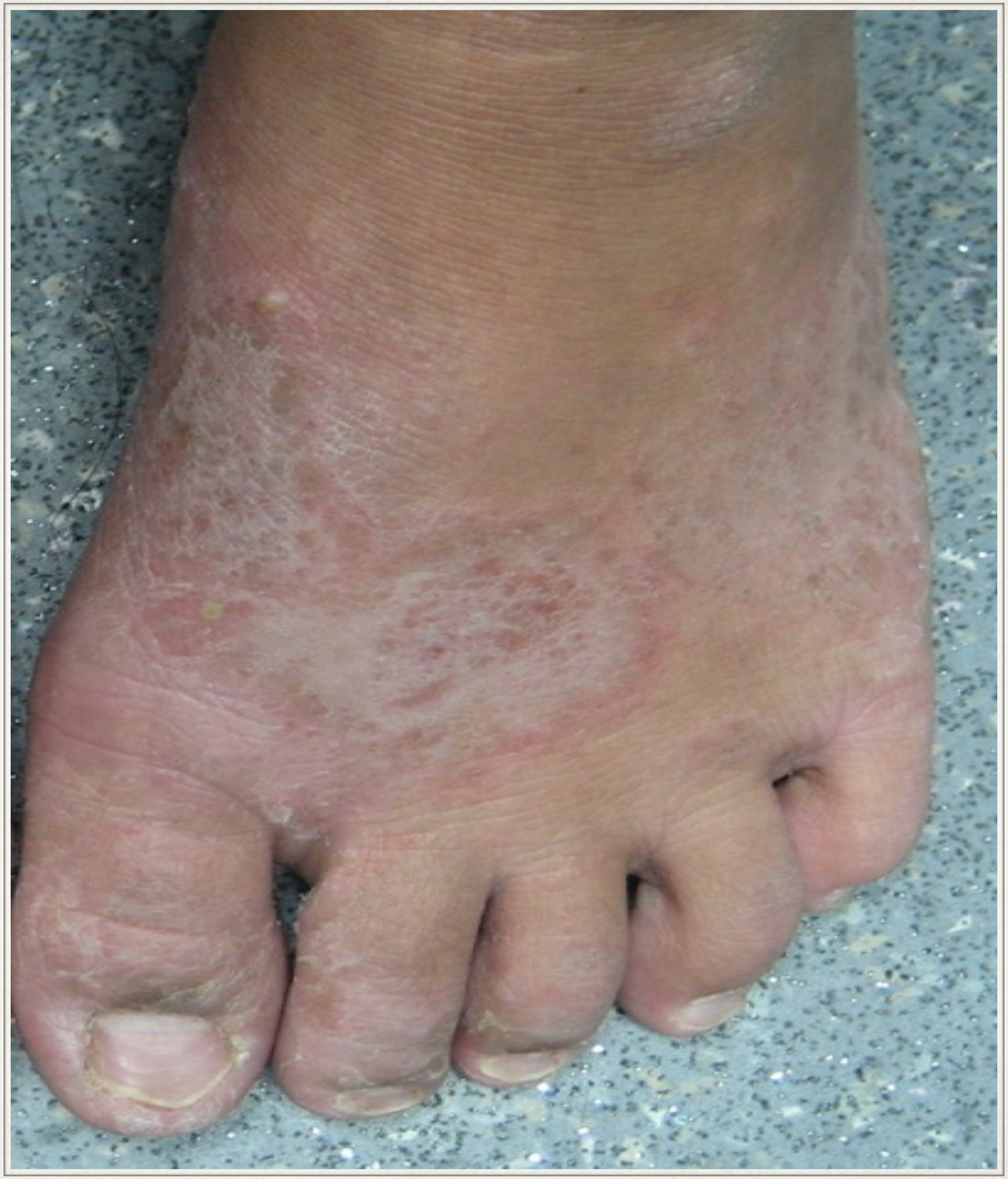


Nickel dermatitis

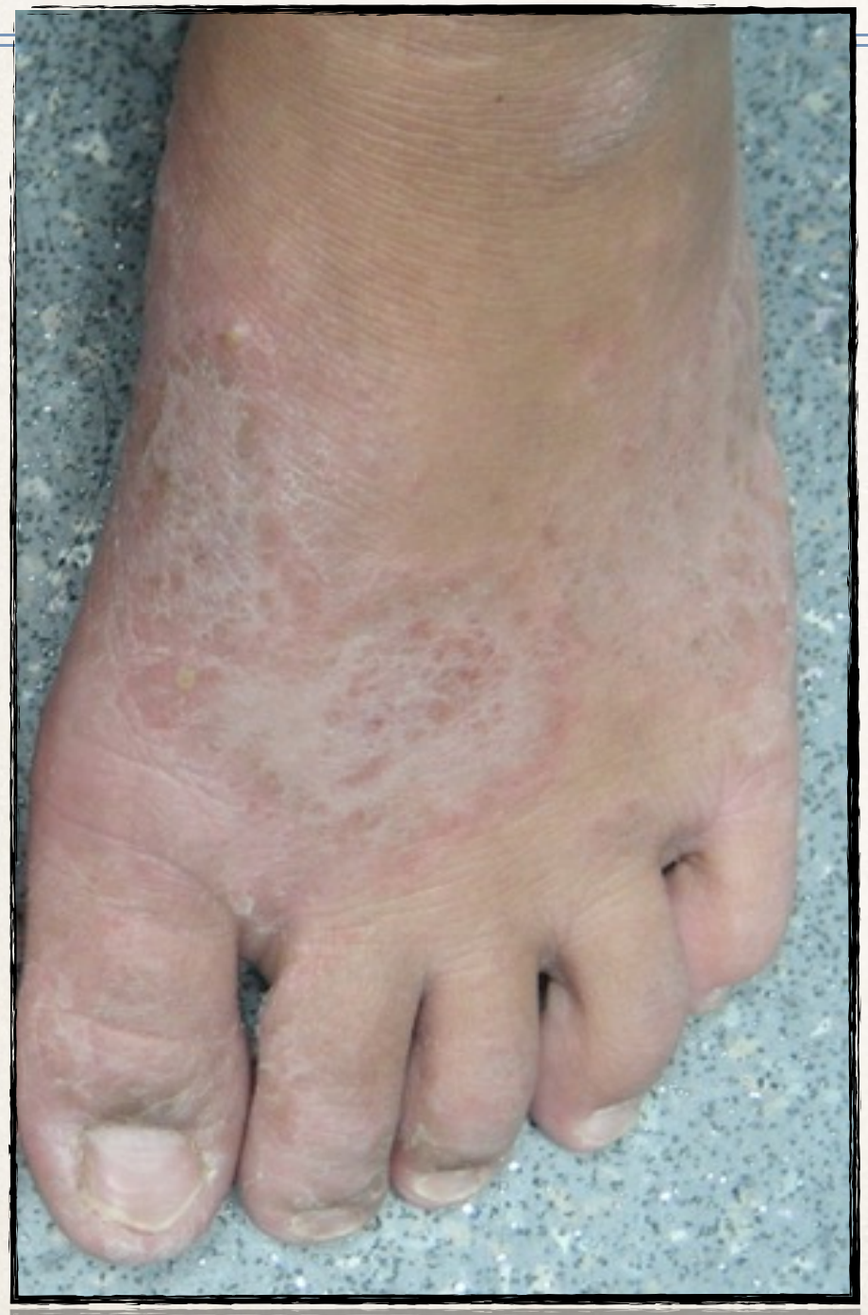


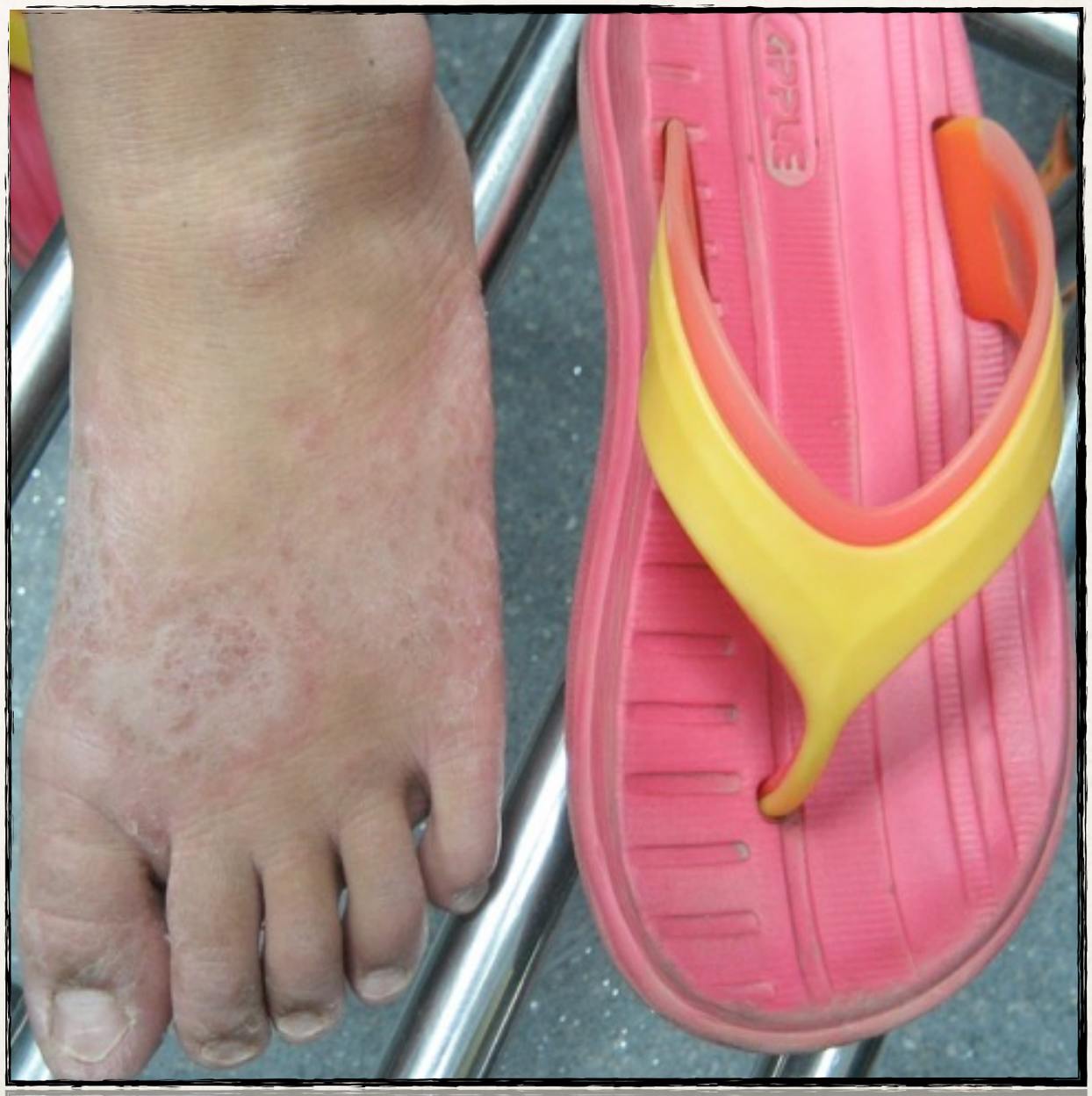
Nickel dermatitis





Rubber dermatitis





Contact dermatitis

- Diagnosis: based on
  - History
  - Clinical appearance and distribution of lesion
- Treatment:
  - Avoid irritating and sensitizing agents
  - Topical corticosteriod
  - Alternative: topical calcineurin inhibitor

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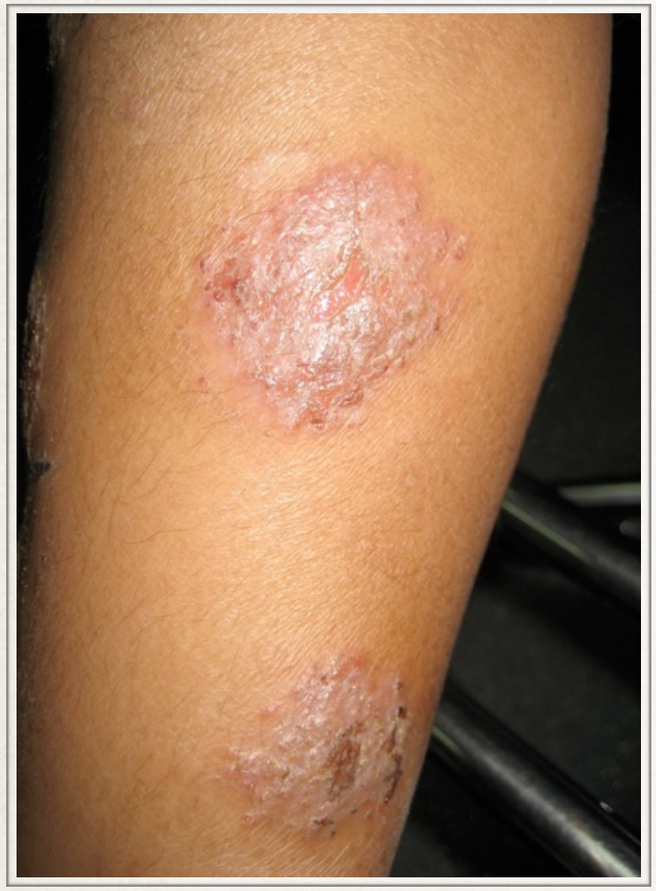

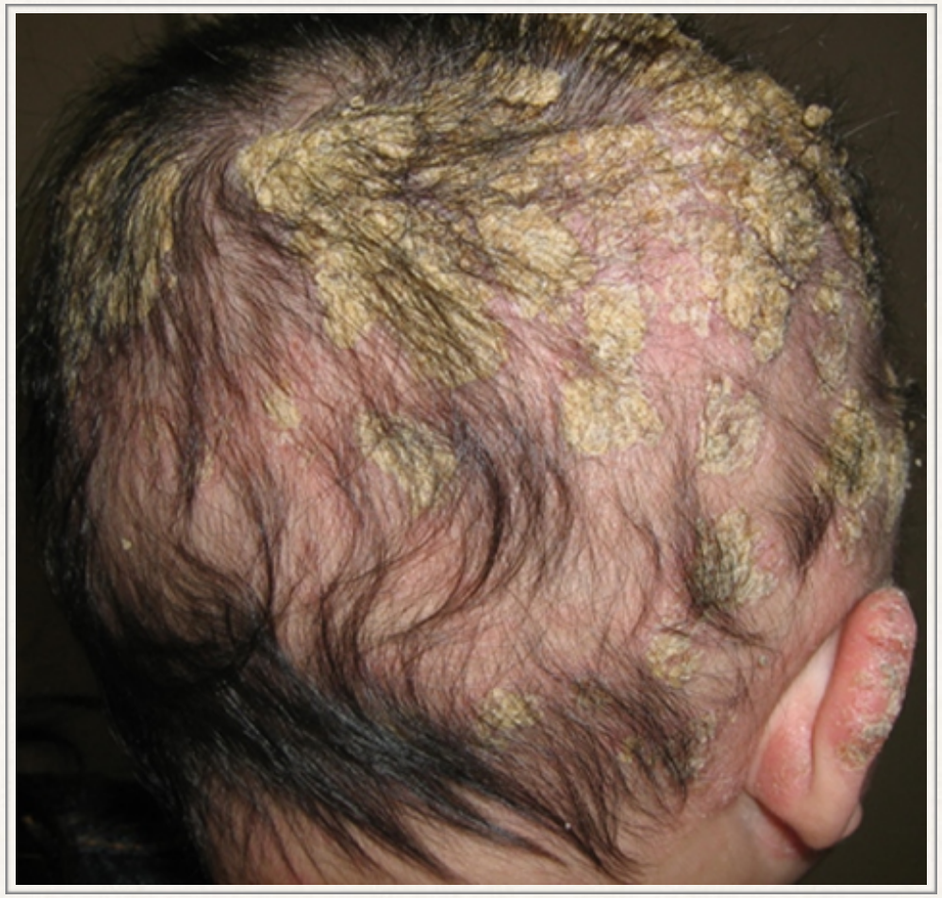

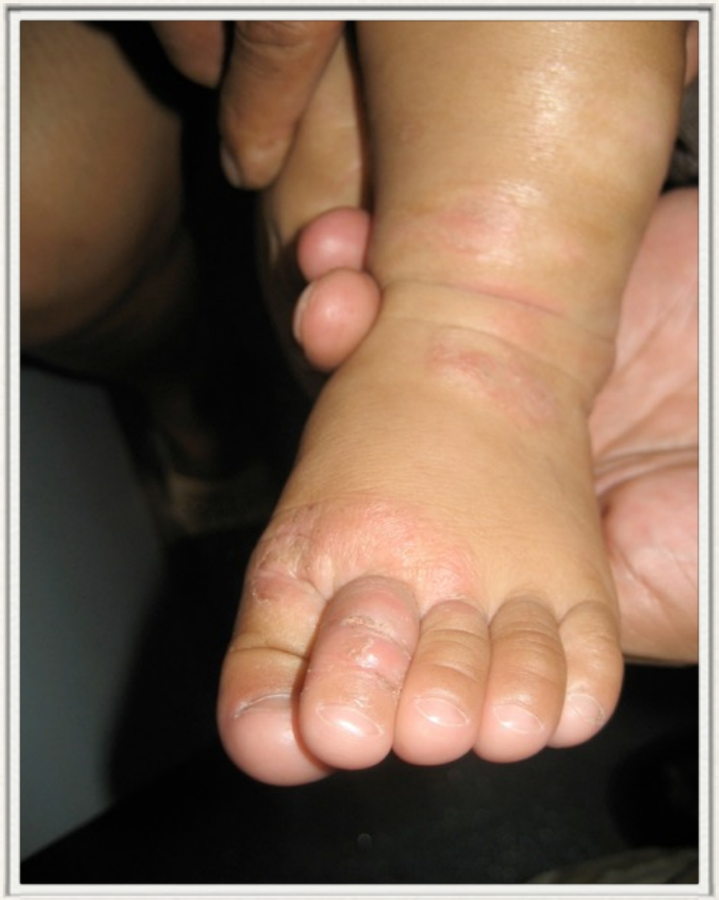

Common Eczema in Children

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