Differential Diagnosis and Treatment of Dermatitis

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Educational Objectives

By completing this educational activity, the participant should be better able to:

1. Develop a screening protocol to identify patients with risk factors for developing hypothyroidism, order appropriate laboratory tests to diagnose hypothyroidism, and diagnose subclinical hypothyroidism.
2. Prescribe appropriate pharmacotherapy for patients with hypothyroidism and monitor patients accordingly.
3. Identify a diversity of tissue compartments in which hypothyroidism is consequential.

Speaker Disclosure

Dr. Cervantes disclosed that she has no financial relationships with any ineligible organizations or commercial interests.

Chief Complaint: Dermatitis

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Disclosure

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Learning Objectives

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2. Prescribe appropriate pharmacotherapy for patients with hypothyroidism and monitor patients accordingly.
3. Identify a diversity of tissue compartments in which hypothyroidism is consequential.

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Dermatitis

General term meaning inflammation of the skin

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Approach to Dermatitis

History	Onset, duration, pattern, associated symptoms, previous skin diseases, previous episodes, contacts, travels, activity, drugs, habits, previous treatments, any response to the treatment
Skin Exam	Features of lesions and location
General Exam	Associated symptoms to rule in/out

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Most Common Dermatitis

Atopic Dermatitis

Seborrheic Dermatitis

Contact Dermatitis (allergic vs. irritant)

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Atopic Dermatitis

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Atopic Dermatitis

- ITCH THAT RASHES
- Chronic inflammatory condition with relapsing itchy and scaly plaques secondary to immunologic, genetic and environmental factors
- Commonly associated with Asthma and Allergies
- Children: 10-30%
  - 85% have symptoms <1 yo
  - 95% have symptoms <5 yo
- Adults: 1-2%

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Atopic Dermatitis

- PRURITUS, main symptom
- Increase risk to develop contact dermatitis and seborrheic dermatitis
- Clinical Presentation: age dependent
  - Neonate: face and scalp +/-alopecia
  - Infant: face, arms & legs
  - Older children & adults: flexural surfaces, face, neck

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Atopic Dermatitis

- Acute
  - Erythema, vesicles, bullae, weeping, crusting
- Subacute
  - Scaly plaques, papules, erosions
- Chronic
- Lichenification, scaling, hyperpigmentation

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Atopic Dermatitis

- Clinical Diagnosis
  - History & Physical
  - Lab tests (only in special cases)
    - Bacterial culture if secondary infection suspected
    - HSV PCR for eczema herpeticum
    - KOH to r/o tinea
    - Scraping to r/o scabies
    - Skin biopsy

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Differential Diagnosis

Contact Dermatitis
Tinea
Impetigo
Psoriasis
Scabies
Seborrheic Dermatitis
Keratosis Pilaris

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Recommendations

- LIBERAL emollient use
  - ***Glazed Donut Look***
- Hypoallergenic soaps & detergents
- Lukewarm showers/baths <10 min
- Colloidal Oatmeal baths
- Bleach Baths no longer recommended
- Wet Wraps
- Avoid known allergens and irritants
  - Fragrances, Wool, Extreme temperatures, Foods

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Treatment

- Topical
  - Steroids
  - Calcineurin inhibitors
  - Crisaborole
  - JAK inhibitors
- Systemic
  - Immunosuppressants
    - Oral: Prednisone, Cyclosporine, Methotrexate
    - Injectable: Dupilumab, JAK inhibitors
- Oral antihistamines- pruritus control
- Phototherapy
- Hospitalization for severe cases

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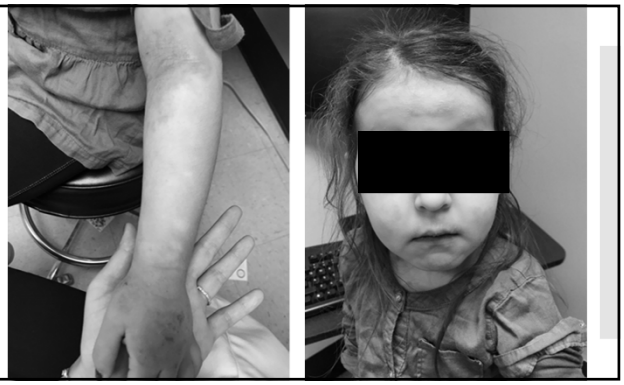

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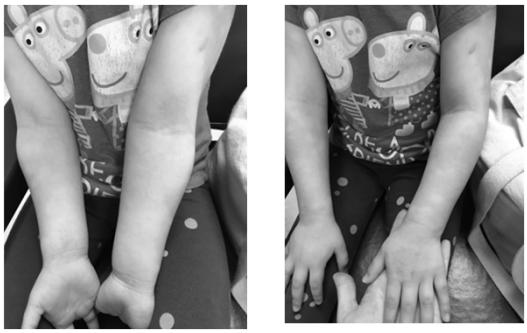

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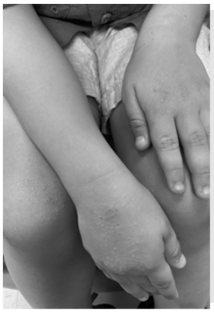
- Failed topical steroids
- Failed Crisaborole
- Responded well to Calcineurin inhibitors



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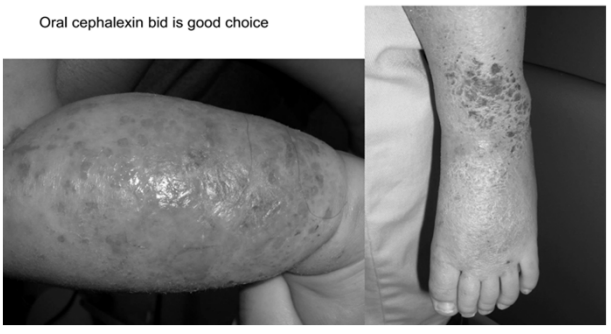

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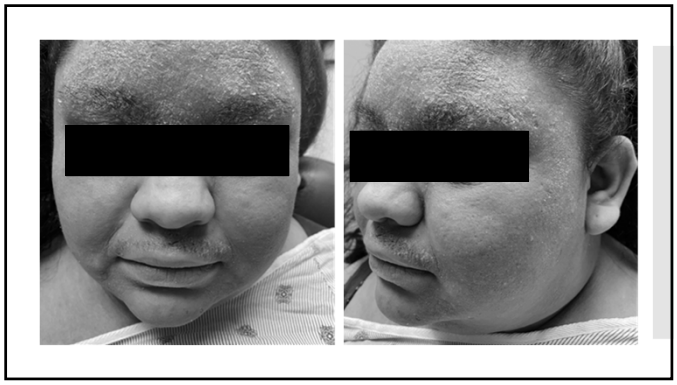

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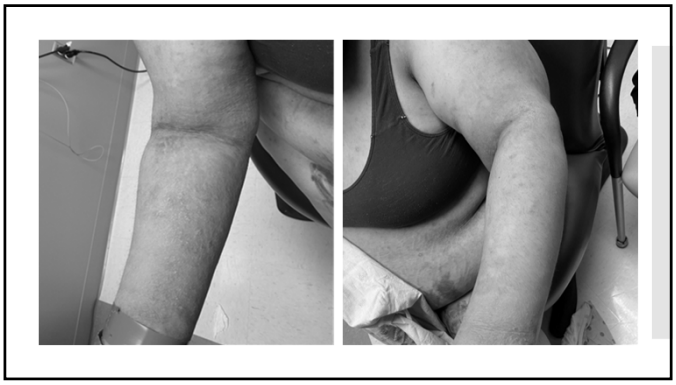

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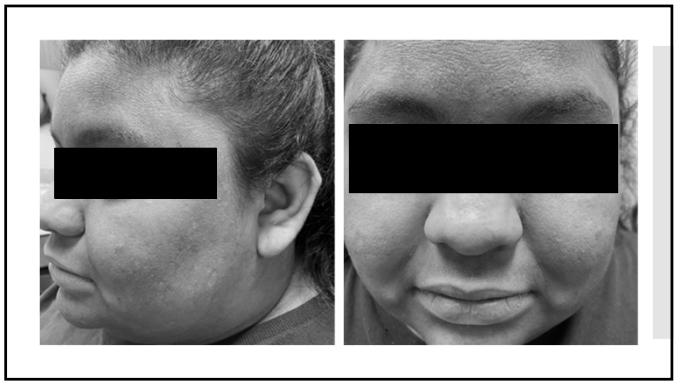

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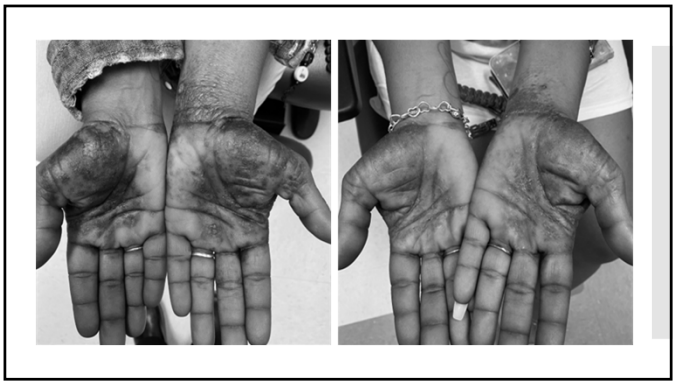

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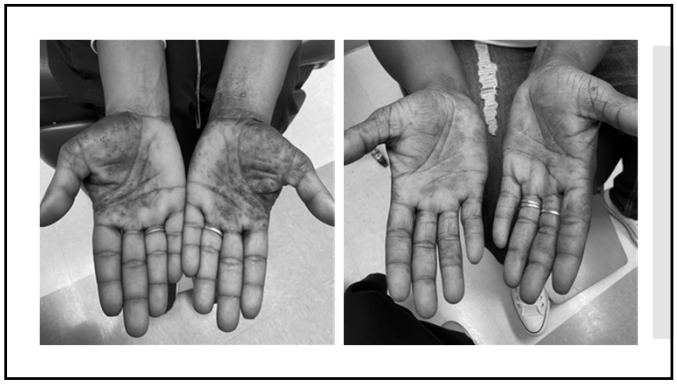

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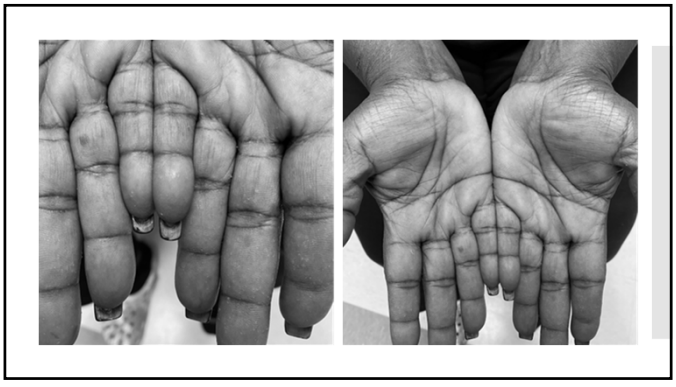

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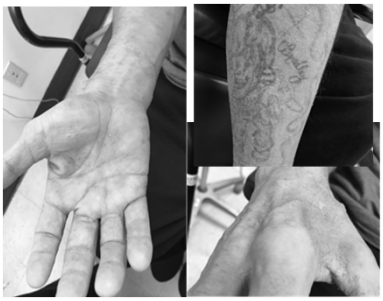
Scabies



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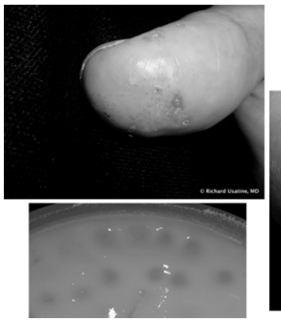

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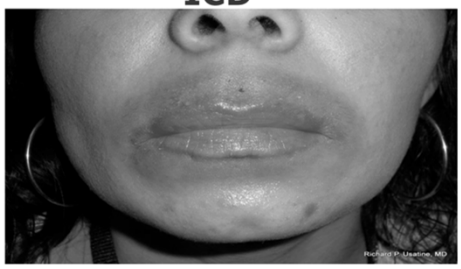
Lip Licker Dermatitis ICD



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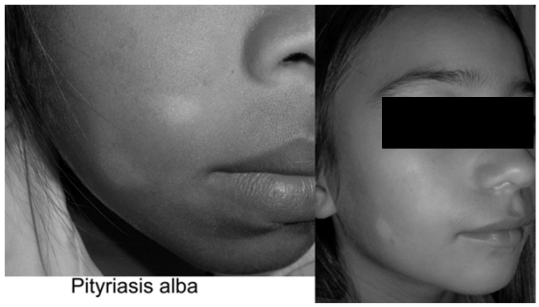

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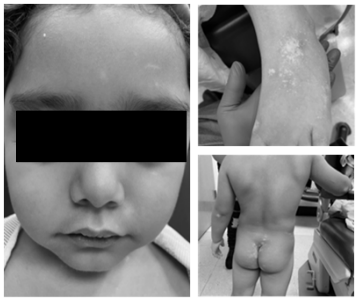
Vitiligo



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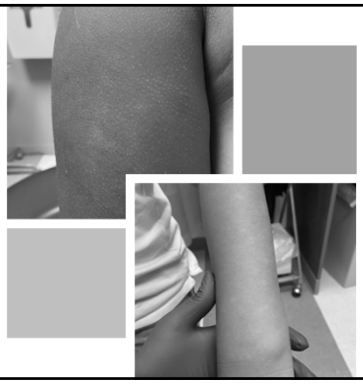
Keratosis Pilaris & Pityriasis Alba



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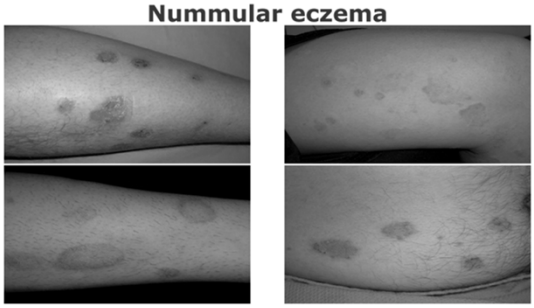
Nummular eczema



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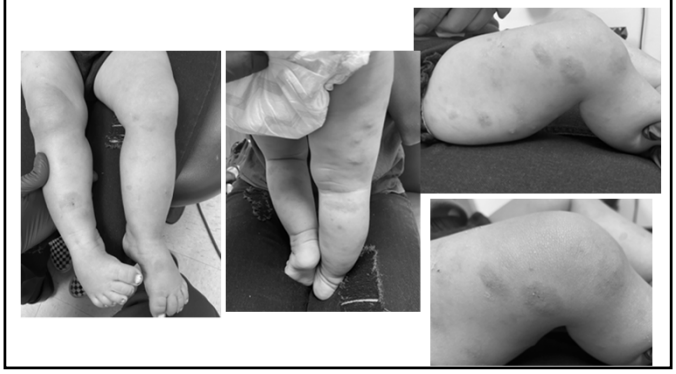

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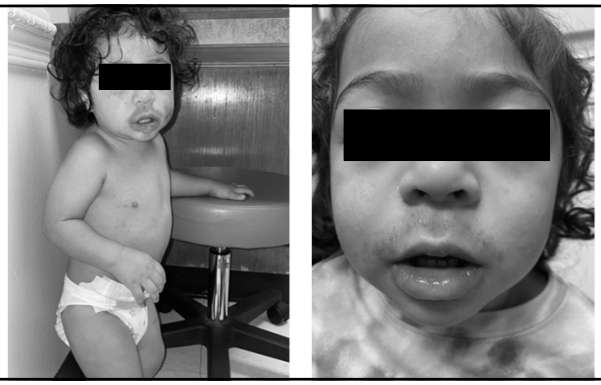

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Steroid Phobia

- Get over it!!!
- Educate your patients, parents, grandparents
- Face: Hydrocortisone 1- 2.5%, Desonide 0.05%
- Body: Triamcinolone 0.1%, Clobetasol 0.05% if severe
- Ointment > Cream > Lotion > Solution
- Alternatives
  - Coconut oil
  - Sunflower Seed Oil
  - Indigo compound
  - Oral Hemp Seed Oil
  - Black Tea Compresses
  - CBD

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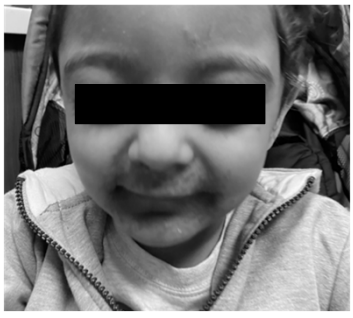

- Mom refused steroids from PCP.
- Would not be swayed.
- Improved with Crisaborole.

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Seborrheic Dermatitis

- Sebum rich areas
- Pityrosporum sp. (Malassezia)
- Neonates → Adults
- Dry, itchy, red, flaky, greasy scalp

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Seborrheic Dermatitis

- Clinical diagnosis
- KOH
- Consider HIV testing if high risk
- Commonly found in Acne-prone patients, elderly & neurological disorders: CVA, Parkinson's disease

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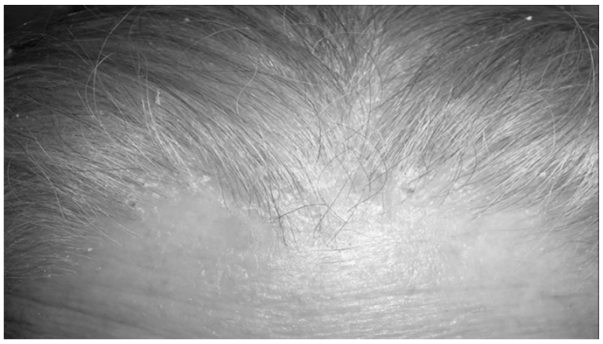

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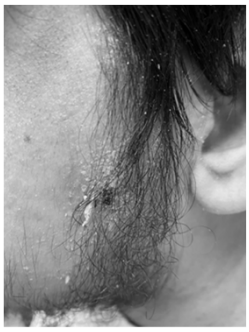

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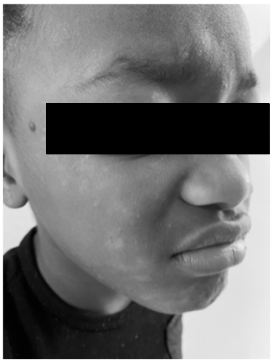

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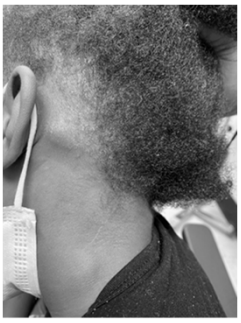

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Differential Diagnosis

- Scalp Psoriasis
- Perioral Dermatitis
- Rosacea
- Tinea Versicolor
- Allergic Contact Dermatitis
- Atopic Dermatitis

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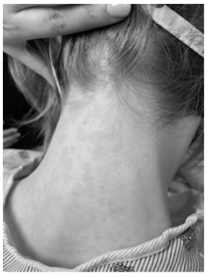
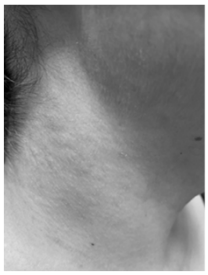
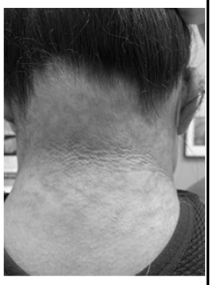

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Treatment for Pityrosporum

- Shampoo
  - Ketoconazole Shampoo
  - Ciclopirox Shampoo
  - Selenium Sulfide
  - Pyrithione zinc
- Topical Antifungal
  - Ketoconazole, econazole, clotrimazole
- Oral
  - Fluconazole

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Treatment for Inflammation

- Topical Steroid
  - Hydrocortisone, Desonide for face
  - Fluocinonide, clobetasol for scalp

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Cradle Cap

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How do you tell the patient to use the products?

- Lather Medicated Shampoo into scalp for 5 minutes before rinsing
- Alternate with dandruff shampoo of choice
- Use foam from scalp to wash face (nasolabial folds, brows, beard) & ears if also affected
- May follow with Conditioner to hair not scalp
- Wash hair on patient's schedule
- African American Hair: Zinc Based shampoo + Ciclopirox
- Topical steroid: nightly, max twice a day
- Face: alternate topical steroid & topical antifungal

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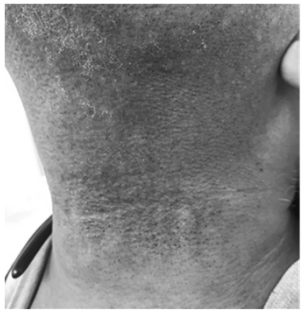
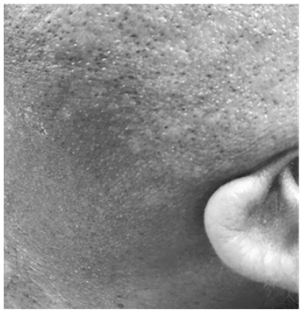

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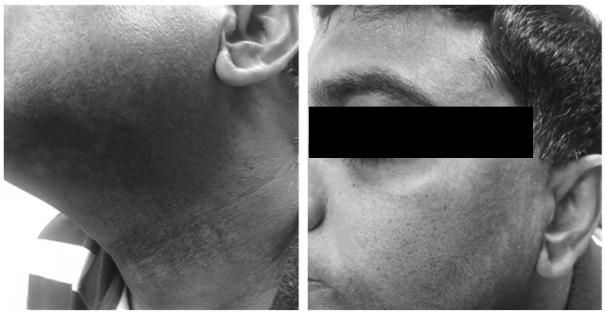

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Contact Dermatitis (Allergic vs. Irritant)

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Allergic Contact Dermatitis

- Hypersensitivity type IV→ Allergen activates T-cell response
- Multiple exposures
- Common Allergens
  - Urushiol (Poison Ivy, Sumac)
  - Nickel
  - Fragrance
  - Metal
  - Neomycin
  - Adhesive
  - Oxybenzone (sunscreen)
  - Formaldehyde-releasing preservative polypropylene (facial mask)

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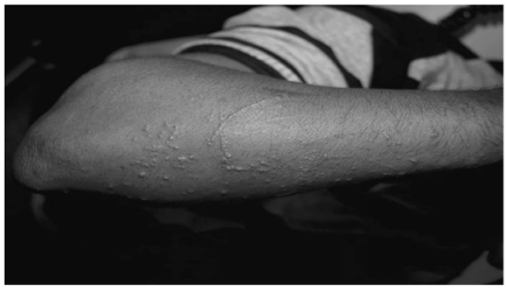
POISON IVY



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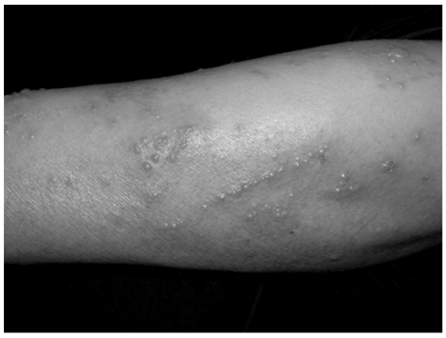

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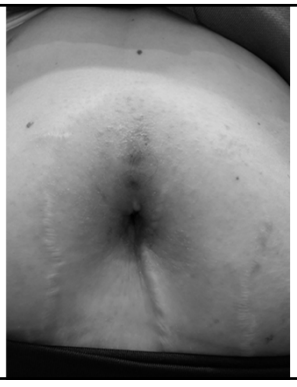
Nickel Allergy



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Allergic Contact Dermatitis

- Acute
  - Erythema, vesicles, bullae, oozing, crusting
- Subacute
  - Scaly plaques, erosions, crusts
- Chronic
  - Scaling, lichenification, fissures, cracks
- Geometric Shape
- Photo activated
- Activity related

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Irritant Contact Dermatitis

- Direct Chemical or physical toxic effect to keratinocytes
- Most common 80% of contact dermatitis
- Begins with burning or stinging feeling
- Common on hands, eyelids, lips
- Everyone is susceptible
- Previous history of atopic dermatitis
- Occupational related
  - Housekeepers, janitors, healthcare workers, electrician, nail techs, mechanics

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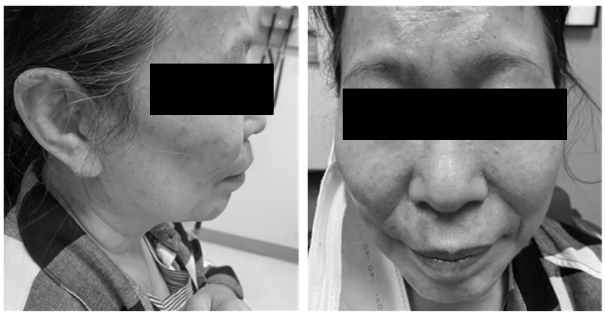

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Irritant Contact Dermatitis

- Water
- Soap
- Detergents
- Alcohol
- Solvents
- Adhesives
- Friction

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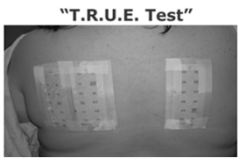
Irritant Contact Dermatitis



Clinical diagnosis
H&P

Contact Patch Testing
True Test x 35 or more advanced if needed

KOH to r/o tinea

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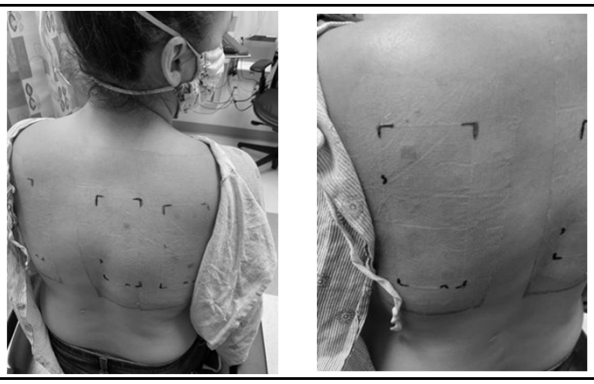

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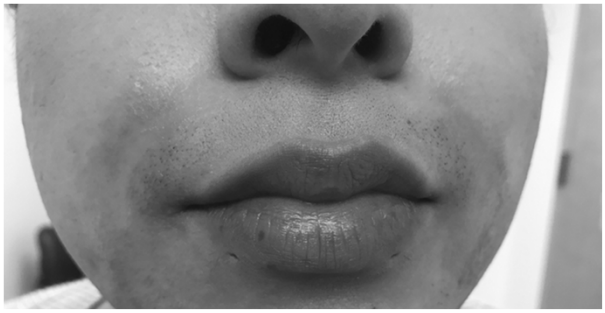

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Differential Diagnosis

- Atopic Dermatitis
- Nummular Eczema
- Dyshidrotic Eczema
- Arthropod Bite Reaction
- Psoriasis
- Seborrheic Dermatitis
- Secondary Syphilis
- Tinea

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Treatment

- Avoid Offending Agent
- Protective Barriers
- Topical Steroids, Calcineurin Inhibitors
- Phototherapy
- Antihistamines for pruritus
- Systemic steroid for severe cases

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Take Home Points

- AD = ITCH that RASHES
- NO to steroid phobia, use with caution
- Ask the right questions
- Mindful of different hair types and practices

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Thank you for your attention!! :)

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Acknowledgements

Dr. Richard Usatine

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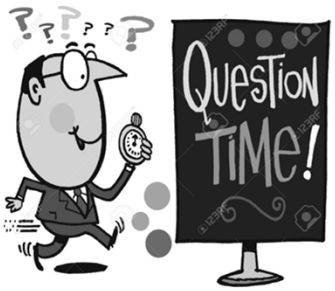

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Notes