Do’s and Don’ts in Pediatric Dermatology

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Disclosures

• Off label use of treatments will be discussed
• Advisor for LEO Pharma
  – Taclonex use in children
  – Not relevant to this talk
Inflammatory reactions to molluscum virus include all of the following, except:

1. Gianotti crosti like reaction
2. Id reaction
3. BOTE sign
4. Molluscum furunculosis
5. Molluscum dermatitis
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Tinea can be distinguished from other annular dermatosis, like granuloma annulare, in that tinea lesions are characteristically:

1. Indurated
2. Have an elevated border
3. Are scaly
4. Are tender
5. Are itchy
Tinea can be a distinguished form other than annular dermatosis like granuloma annulare, in that tinea lesions are characteristically:

1. Indurated
2. Have an elevated border
3. Are scaly
4. Are tender
5. Are itchy
The most common cause of allergic contact dermatitis in children is:

1. Poison Ivy
2. Nickel
3. Latex
4. Peanuts
5. Fragrances
The most common cause of allergic contact dermatitis in children is:

1. Poison Ivy
2. Nickel
3. Latex
4. Peanuts
5. Fragrances
The Myth

• “lesions are infected”
• “the patient also has furunculosis”
• “the lesions are bug bites”

The Misconception

• Lesions need to be treated with topical antibiotics
• Lesions need to be treated with oral antibiotics
• Lesions need to be treated with topical benadryl
Inflammatory reactions to Molluscum
Inflamed Molluscum lesions
The “BOTE” sign
(beginning of the end)

- Lesions may be mistaken for bacterial infections like furuncle and cellulitis
- Purulent material is usually sterile
- Superinfection with Staph aureus can occur but is rare
- Represent cell mediated immune reaction to the molluscum virus

The “BOTE” sign

Do’s & Don’ts…

• The BOTE sign
  – Usually no need to start topical or systemic antibiotics
  – Reassure the parents that this represents the body recognizing the virus and fighting it!!
  – Topical benadryl not recommended, not effective and can cause contact dermatitis
Molluscum dermatitis

- Seen more often in pts with AD
- If severe treat with topical corticosteroid prior to treat with cantharidin
- In a study by Berger et al. more lesions were seen at f/u in patients treated with CS than those that where not. Not statistically significant
- Liberal use of emollients

The Misconception

- Rash consistent with scabies
- Rash consistent with hand foot mouth disease
- Rash consistent with eczema

Treatment
- Permethrin
- Nothing
- Topical Corticosteroids
- Systemic Corticosteroids
Gianotti-Crosti syndrome–like reactions
Gianotti-Crosti syndrome–like reactions
Gianotti-Crosti syndrome-like reactions

- Reaction can occur with or without treatment
- Most commonly seen on extremities specially on the extensor surfaces.
- Mean duration → 6 weeks
- Complete resolution of MC lesions was seen about 2 months after presentation of GCLR

Do’s & Don’ts

• If prior hx of molluscum this rash may represent most likely an inflammatory reaction to the virus
• If suspect scabies look in web spaces, groin and axillas.
• Treatment
  – If not symptomatic → reassurance
  – If itchy → may use mild-mid potency topical corticosteroids
  – If not sleeping because of itch → May try systemic antihistamines
What looks like tinea is not always tinea
Tinea or not tinea?
Not tinea

Granuloma Annulare

- Fairly common condition in children
- Lesions are annular, smooth, **non-scaly** plaque with a border composed of numerous small papules
- Common locations, dorsum of hands, feet, ankles and wrists.
- Types
  - Generalized
  - Subcutaneous
  - Perforating.
- Treatment
  - Observation
  - Topical corticosteroids
  - Intrallesional corticosteroids
  - Phototherapy
  - In some rare cases cyclosporine, prednisone, dapsone, isotretinoin.
Tinea or not tinea?
Tinea or not tinea?

Yes!!
This is Tinea
Tinea

- Usually present as annular, **scaly** plaques
- Locations
  - non-hairy areas of the face, the trunk, and extremities
  - Other areas
    - scalp, bearded areas, groin, hands, feet, and nails
- Who is at risk
  - wrestlers, contact with domestic animals such as puppies and cats
  - Children living in warm humid climate
  - Children with DM, immunodeficiency or leukemia
Tinea

• What organisms
  – *M. canis* occasionally *M. audouinii* or *T. mentagrophytes*.
  – In older children and adults, *T. rubrum*, *T. verrucosum*, *T. mentagrophytes*, or *T. tonsurans*.

• How to diagnose it
  – KOH
  – Culture
  – Biopsy
  – Wood’s lamp
    (not useful for tinea corporis)
Treatment

• For non hairy areas on the face, torso and extremities
  – topical antifungals for 2 -3 weeks
    • Nystatin not effective against dermatophytes

• For the scalp, hairy areas of the face, beard, and extremities
  – Systemic antifungals

• AVOID COMBINATION PRODUCTS OF CORTICOSTEROIDS AND ANTIFUNGALS
Tinea Majocchi’s granuloma

• Perifollicular granulomatous lesions
• Caused by *T. rubrum* or *T. mentagrophytes*
• Systemic therapy recommended
Tinea or not tinea?
NOT Tinea

Discoid lupus

- Discoid lesions in children usually present on the face, ears, cheeks.
- Can be confused for tinea
- Key features
  - Not scaly
  - Lesions more indurated
  - Always look in the ears!!
- 5 -25% risk of progression to SLE, higher than what is seen in adults.
- May require biopsy for diagnosis
- Treatment
  - Topical corticosteroids
  - Antimalarials
  - Strict sun protection and sunscreen use

Tinea or not tinea?
Not tinea

Nummular eczema

- *Nummulus* = ‘coin-like’
- Common presentation of eczema in children
- Lesions are annular, usually more excoriated, crusty and lichenified
- Will need treatment with mid to mid-high potency topical corticosteroids to improve
- Wet wraps usually recommended for thick lesions
- If lesions are recalcitrant a secondary staphylococcal infection should always be considered
  - Culture the lesion
  - Start systemic antibiotic.
Tinea or Not tinea?
Nickel allergic contact dermatitis with ID reaction
Allergic contact dermatitis

• Type IV hypersensitivity reaction - cell mediated
• Most common allergen – Urushiol
  – poison ivy, poison oak
• Most common allergen tested
  – Nickel!!
Top allergens in Children with & without AD

<table>
<thead>
<tr>
<th>ALLERGEN NAME</th>
<th>AD</th>
<th>NON-AD</th>
<th>TOTAL Z-SCORE</th>
<th>STATISTICAL SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% REACTION (N)</td>
<td>% REACTION (N)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Nickel sulphate</td>
<td>35% (19)</td>
<td>26% (12)</td>
<td>31% (31)</td>
<td>1.05</td>
</tr>
<tr>
<td>2. Wool alcohols</td>
<td>24% (13)</td>
<td>11% (5)</td>
<td>18% (18)</td>
<td>1.76</td>
</tr>
<tr>
<td>3. PTBPFR</td>
<td>15% (8)</td>
<td>15% (7)</td>
<td>15% (15)</td>
<td>-0.01</td>
</tr>
<tr>
<td>4. Myroxylon pereirae</td>
<td>20% (11)</td>
<td>2% (12)</td>
<td>12% (12)</td>
<td>2.83</td>
</tr>
<tr>
<td>5. Cobalt</td>
<td>13% (7)</td>
<td>9% (4)</td>
<td>11% (11)</td>
<td>0.72</td>
</tr>
<tr>
<td>6. Formaldehyde</td>
<td>15% (8)</td>
<td>4% (2)</td>
<td>10% (10)</td>
<td>1.77</td>
</tr>
<tr>
<td>7. Fragrance mix 1</td>
<td>19% (10)</td>
<td>0% (0)</td>
<td>10% (10)</td>
<td>3.11</td>
</tr>
<tr>
<td>8. Colophonium</td>
<td>13% (7)</td>
<td>4% (2)</td>
<td>9% (9)</td>
<td>1.53</td>
</tr>
<tr>
<td>9. Potassium Dichromate</td>
<td>11% (6)</td>
<td>4% (2)</td>
<td>8% (8)</td>
<td>1.27</td>
</tr>
<tr>
<td>9. Neomycin sulphate</td>
<td>7% (4)</td>
<td>9% (4)</td>
<td>8% (8)</td>
<td>-0.2</td>
</tr>
<tr>
<td>10. Tixocortol-21-pivalate</td>
<td>11% (6)</td>
<td>2% (1)</td>
<td>7% (7)</td>
<td>1.77</td>
</tr>
</tbody>
</table>
How do we test

• If lesions are classic there is no need to test
  – Avoidance recommended first
• If unclear or no improvement with Avoidance
  – Patch testing
    • TRUE test
    • Comprehensive patch testing
Myths and Misconceptions in Dermatology

T.R.U.E. test

Comprehensive

Slide courtesy of S. Jacob - basics on patch testing
Myths and Misconceptions in Dermatology
NICKEL IS EVERYWHERE

ELECTRONICS WITH METAL COATING

Cellphones
IPADs
video games
Nickel at School

School chair sign

What’s in your pockets
Nickel in leather
Treatment

• AVOIDANCE AVOIDANCE AVOIDANCE
• Stop active reaction with topical corticosteroids
• Teach patients about dimethylglyoxime test to test for nickel on products
WET WIPES & METHYLISOTHIAZOLINONE

- Multiple reports of ACD in face and perianal area related to wet wipes.
- Allergen of the year in 2013
- Used as a preservative in multiple personal health care products including wet wipes, shampoos, moisturizers, cosmetics
- MCI/MI mix in True test, but can miss up to 40% of reactions to MI
- Recommend testing for MI as well
- Avoidance and use of topical corticosteroids for treatment.

Thank You!

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