Current Landscape in the Treatment of Atopic Dermatitis

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Atopic Dermatitis – Clinically Heterogeneous

Weidinger S, Novak N. Lancet 2015; 387(10023):1109

Atopic Dermatitis – Clinically Heterogeneous

Weidinger S, Novak N. Lancet Sep 2015
Atopic Dermatitis – Treatment Approaches

Tang TS, Bieber T, Williams HC. J Allergy Clin Immunol 2014;133:1615

- Emollients/barrier repair creams
- Topical corticosteroids
- Topical calcineurin inhibitors
- Topical PDE4 inhibitors
- Oral immunosuppressives (e.g. Cyclosporine)
- Phototherapy
- Dupilumab
More Moisturizer = Less Eczema!


Moisturizer Tips

- If they find it too cold: have them “float” the jar in the tub while the patient takes a bath to warm it up
- If the skin is hot and it makes it feel hotter/itchier: keep it in the refrigerator (not freezer)
- If infection is a problem: use a clean spoon to dispense the cream (instead of fingers)
More Frequent Bathing is Better!


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No Evidence of Increased Cancer Incidence in Children Using Topical Tacrolimus for Atopic Dermatitis

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**Small Molecules for Atopic Dermatitis**

Crisaborole

- Topical phosphodiesterase 4 (PDE4) inhibitor
- FDA-approved for mild-to-moderate AD
- Approved for patients aged 3 months and older

Attar Dermatology: 10.1016/j.jaad.2020.03.001

**Biologic Agents for Atopic Dermatitis**

- Fully human monoclonal antibody that inhibits signaling of both IL-4 and IL-13, the primary drivers of type 2 inflammation in many diseases\(^1\)-\(^3\)
- Approved for the treatment of patients ≥ 6 yrs of age with moderate to severe AD whose disease is not adequately controlled with topical prescription therapies or when those therapies are not advisable\(^4\)
- Recent results reported for:
  - Erythrodermic AD\(^7\)

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**Step-Care Management of Atopic Dermatitis**

<table>
<thead>
<tr>
<th>Nonlesional</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Management</strong></td>
<td><strong>Basic Management + Topical Anti-inflammatory Medication</strong></td>
<td><strong>Basic Management + Referral to AD Specialist</strong></td>
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<tr>
<td>1. Skin Care</td>
<td></td>
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<tr>
<td>• Moisturizer, liberal and frequent (choice per patient preference)</td>
<td>• Apply on areas of previous or potential symptoms (skin flare)</td>
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<tr>
<td>• Warm bath/shower with nonsoap cleansers, usually once daily and followed by moisturizer (even on clear areas)</td>
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<tr>
<td></td>
<td><strong>Maintenance TCS</strong></td>
<td><strong>Phototherapy</strong></td>
<td></td>
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<tr>
<td>2. Antiseptic Measures</td>
<td>• Low potency 1x-2x daily (including face)</td>
<td><strong>Dupilumab</strong></td>
<td></td>
</tr>
<tr>
<td>• Dilute bleach bath (or equivalent) ≤ Q2W (especially with recurrent infections)</td>
<td>• Medium potency 1x-2x weekly (except face)</td>
<td><strong>Systemic Immunosuppressants</strong></td>
<td></td>
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<tr>
<td></td>
<td>OR Maintenance TCI</td>
<td>• Cyclosporine A</td>
<td></td>
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<tr>
<td>• Antibiotics if needed</td>
<td>(pimecrolimus, tacrolimus)</td>
<td>• Methotrexate</td>
<td></td>
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<tr>
<td></td>
<td>• 1x-2x daily</td>
<td>• Mycophenolate mofetil</td>
<td></td>
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<tr>
<td>3. Trigger Avoidance</td>
<td>• 2x-3x weekly (not an indicated dosage)</td>
<td>• Azathioprine</td>
<td></td>
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<tr>
<td>• Proven allergens and common irritants (eg, soaps, wool, temperature extremes)</td>
<td><strong>Crisaborole 2%</strong></td>
<td>• Corticosteroids</td>
<td></td>
</tr>
<tr>
<td>• Consider comorbidities</td>
<td>• 2x daily</td>
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</tbody>
</table>

**Acute Treatment**

- **Apply TCS to Inflamed Skin**
- Low to medium potency TCS 2x daily for 3-7 days beyond clearance (consider TCI, crisaborole)

**AD Yardstick: Practical Recommendations for an Evolving Therapeutic Landscape**

**Patient Profile: Stepping up from MILD to MODERATE AD**: Symptomatic despite appropriate use of low to medium potency TCS and following basic management recommendations for skin care, antiseptic treatment and avoidance of allergens/irritants

- Increase TCS dose or potency
- Add TCI
- Add crisaborole 2% ointment

**3-mo therapeutic trial with reassessment at 4-8 wks**

**Refer to Specialist**
- Consider for some patients:
  - Wet wrap therapy
  - Hospitalization

**Patient Profile: Stepping up from MODERATE to SEVERE AD**: Symptomatic despite aggressive course of topical prescription therapy ≥ 3 wks and following basic management recommendations for skin care, antiseptic treatment and avoidance of allergens/irritants, particularly when there is severe negative impact on ADL, psychosocial health, and QoL

- Phototherapy
- Dupilumab
- Systemic immunosuppressant therapy
- Cyclosporine
- Methotrexate
- Azathioprine
- Mycophenolate mofetil
- Corticosteroids

**3-mo therapeutic trial with reassessment at 4-8 wks**
Proactive Therapy with TCI

Proactive: 0.1% tacrolimus ointment twice weekly
Reactive: 0.1% tacrolimus ointment b.i.d. during disease exacerbations


Pruritus

- Most distressing symptom of AD
- Adversely impacts sleep, mood, and quality of life
- Severity and/or impact can be out of proportion clinical severity of AD
Crisaborole ointment Phase 3 studies–Early improvement in pruritus

Yosipovitch et al. Acta Derm Venereol 2018 Apr 27;98(5):484

Crisaborole ointment Phase 3 studies–Early improvement in pruritus

Yosipovitch et al. Acta Derm Venereol 2018 Apr 27;98(5):484
Dupilumab and Itch Reduction


Atopic Dermatitis and Quality of Life

Simpson EL et al. JAMA Dermatol. 2018;154(8):903