**Immunosuppressants and Contact Dermatitis**

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**Expert Opinion**

**Meds less likely to impact patch test results**
- Methotrexate (ideally < 0.25 mg/kg/wk)
- Prednisone < 10 mg/day
- Biologic therapy
- Low dose cyclosporine (< 2 mg/kg)
- Azathioprine (dose dependent)
- Mycophenolate mofetil (dose dependent)
- Tacrolimus, systemic (dose dependent)

**Treatments likely to impact patch test results**
- Phototherapy/prolonged UV exposure within the last week
- Topical steroids at patch testing site within 3-7 days
- Prednisone > 10 mg/day
- High dose cyclosporine (> 2 mg/kg)
- Intramuscular triamcinolone (avoid for 4 weeks)

**Approach to Patch Testing Patients on Immunosuppressive Treatments**
- Avoid topical immunosuppressants to the patch testing site for at least 3-7 days
- Avoid systemic immunosuppression for 5 half-lives of the drug in question (usually 1 month acceptable)
- When unavoidable, use the minimum dose required
- Carefully consider weak positives/indeterminate reactions
- Consider retesting when off immunosuppression

**Take Home Points: Case 1**
- Avoid systemic immunosuppression whenever possible
- When unavoidable, try to limit use to the minimum dose required
- Carefully consider doubtful reactions in these patients
- Consider repeat patch testing when off immunosuppression
Immunosuppressants and Contact Dermatitis

- Use of immunosuppressants while patch testing
- Patch testing to topical immunosuppressants

Medicament Allergy

- Medication allergy should be suspected in pts w:
  - Treatment failure
  - Worsening with treatment
  - Initial improvement but drop-off in response
  - 0.2 - 6% corticosteroid
- Patch testing may be challenging
  - Tends to peak late (i.e. Day 7)
  - Finding the right concentration is difficult
  - Reactions may be difficult to interpret

<table>
<thead>
<tr>
<th>Class</th>
<th>Type</th>
<th>Patch test allergen</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Hydrocortisone</td>
<td>Triamcinolone pivalate</td>
<td>Prednisone, prednisolone, methylprednisolone, betamethasone, hydrocortisone, tixocortol pivalate</td>
</tr>
<tr>
<td>B</td>
<td>Triamcinolone acetonide</td>
<td>Budesonide</td>
<td>Fluocortolone, desonide, fluocinolone acetonide, triamcinolone acetonide, halocortolone, budesonide</td>
</tr>
<tr>
<td>C</td>
<td>Betamethasone</td>
<td>Desoximetasone, clocortolone pivalate, miconazole</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Betamethasone Dipropionate</td>
<td>D1: Clobetasol-17-propionate</td>
<td>D1: Betamethasone valerate &amp; dipropionate, clocortolone dipropionate, aclometasone dipropionate, D2: Hydrocortisone-17-valerate &amp; butyrate</td>
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<tr>
<td></td>
<td>Methylprednisolone acetonide</td>
<td>D2: Hydrocortisone-17-valerate &amp; butyrate</td>
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</tbody>
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Approach to Corticosteroid Allergy

- If not having expected response or tests + to just one group, try a steroid from a different group
- If still not improved, then use a class C steroid (desoximetasone for body, clocortolone for face/flexures)
- Up to 10% patients allergic to tixocortol (class A) may have allergy to prednisone – need a class C oral steroid (dexamethasone)
- Patch test to individual agent

Vehicle Allergy

- Formaldehyde releasers (6.6%)
- Methylchloroisothiazolinone/methylisothiazolinone (5%)
- Lanolin (4.6%)
- Propylene glycol (2.6%)
- Parabens (1.4%)
- Sorbitan sesquioleate

Approach to Vehicle Allergy

- Maintain a high index of suspicion for this
- If True test nonrevealing, consider more extensive testing
- ACDS CAMP database is very helpful to limit exposure via medicaments or other sources
- Beware generic substitutions
**Take Home Points: Case 2 & 3**

- Suspect medicament allergy when dermatitis fails to improve
- Medicament allergy should also be added to the differential diagnosis for foot dermatitis
- Consider allergy to the vehicle as well as the active ingredient
- Always patch test to medicaments themselves whenever possible

**Summary**

- Avoid systemic immunosuppression when patch testing, or limit use to minimum dose required
- Consider repeat patch testing when off immunosuppression
- Suspect medicament allergy when dermatitis fails to improve
- Consider allergy to the vehicle as well as the active ingredient

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Thank You