Eczema and Allergies: Dispelling Myths and Finding Common Ground

Here are five practical insights learned from a visiting professor for evaluating children with eczema and associated food allergies.

By Alanna F. Bree, MD, reviewed by Hugh Sampson, MD

As a clinician at a university-based practice, I welcome the educational interactions with visiting professors, especially when we are lucky to welcome those in-demand specialists with numerous other commitments. This month, I’ll share a bit of what I learned during a recent visit from Hugh Sampson, MD, a Professor of Pediatrics and Immunobiology at the Mount Sinai School of Medicine and Division Chief of Allergy & Immunology in the Department of Pediatrics, Director of the Jaffe Food Allergy Institute, and Director of the General Clinical Research Center at the Mount Sinai Medical Center. Dr. Sampson has multiple research interests and publications focused on food allergic disorders.

1. Food allergies may be more common than we often suspect.

Food allergies develop when the mucosal response to a food is abnormal, with some component of the food acting as an antigenic stimulus. This abnormal immune response is not uncommon, with at least 2.5 percent of the US population under the age of three years affected by a milk allergy. The risk of a food allergy is also on the rise in the US, with a doubling of peanut-allergies in children less than five years of age over the last five years. The risk of an associated food allergy is even higher in those with an atopic diathesis. One study found that 40 percent of children with moderate to severe eczema were affected by food in a blinded, food-challenge situation. In another French study, the association was nearly 90 percent in young children with severe eczema.

Eggs are the most common food allergen, making up nearly 80 percent of cases in children with eczema. Other common offenders in this population include milk and peanuts.

The good news is that 80 percent of those affected by milk allergies will outgrow them by three to four years of age, 80 percent of patients with an egg allergy will outgrow it by five years of age, but only 15 percent of peanut-allergic people will outgrow their allergy.

2. Consider other allergens, aside from foods, as potential precipitants of eczema.

Sensitivity to food can certainly be a trigger for the immune system. There are also several others that can drive the inflammatory cascade and lead to a flare of all atopic diseases, including eczema. We know that lymphadenopathy can be TNF-induced. Many dermatologists also know that a child’s eczema will flare if they are sick. It just makes sense that some of the immune upregulation associated with the illness will affect the already altered immune system in the skin of patients with eczema.

Additionally, studies show that up to 99 percent of children with atopic dermatitis are colonized with Staphylococcus. The associated exotoxin that can be liberated in such infections can certainly rev up the immune system and lead to worsening of a child’s eczema.

Also, remember that aeroallergens, including pets and dust mites, can trigger immune hyperresponsiveness and worsening of the associated skin disease. An occult infection may alternately be the cause.

Remember to ask questions and seek out these potential triggers in your patients.

3. Increase your suspicion for potential allergens in children who are younger, who have more severe eczema, who do not respond to standard therapies, and who are lower on the growth curve.
When what you think should be working just isn’t, consider underlying allergies that may be limiting the effectiveness of your treatments. Many studies show that younger children are at an increased likelihood of having more severe eczema, as well as the likelihood of being associated with food allergy.

As many of you have probably observed, children with severe atopic dermatitis tend to be small in regards to height and weight for their age. Why is this? Is it because their sleep-wake cycles are disrupted, because they expend so much of their energy scratching, because of subtle HPA axis suppression related to chronic topical steroid use, or is it related to malnutrition?

No one knows for sure, but the answer is most likely multi-factorial. It is still wise to consider an associated food allergy that can cause gastrointestinal malabsorption and lead to delayed growth. This scenario can often be identified in children who also have abdominal pain, nausea, vomiting and diarrhea, but most of the children with severe eczema and food allergy just have a “poor appetite” or are labeled as “picky eaters.” Children affected by gastrointestinal food allergies will normalize on the growth curve once the identified allergen is eliminated. So don’t forget a thorough review of systems in your atopic dermatitis population.

4. Eliminating the drivers of inflammation can have a positive impact on skin disease.
If a patient is able to eliminate identified allergic precipitants of their eczema, the underlying cytokine-mediated inflammation will be down-regulated and this can have a direct positive effect on the skin disease and other allergic disorders that can be driven by the so-called “atopic march.” Some physicians now even recommend that mothers with a family medical history of atopy avoid peanuts during pregnancy and breast-feeding.

Identification and elimination of foods may be hard, and it may be even more difficult to get rid of the family pet, but there is one easy, inexpensive tip that can help reduce one of the precipitants of eczematous flares. The tip is regular, intermittent dilute bleach baths to reduce Staphylococcus colonization. In a study conducted at Baylor University, this was also shown to decrease the incidence of MRSA infections. All it takes is bathing in a tub of water with 1/8-1/2 cup of plain bleach three times per week.

For those patients that have anaphylactic food allergies, it is also important for them to carry an EpiPen Jr. at all times.

5. Don’t be shy to rely on your colleagues for consultation.

Our colleagues in allergy/immunology and gastroenterology are wonderful resources. Their consultation can provide valuable information for patients afflicted by severe eczema. More specific detection of food allergies is also available.

Many dermatologists are aware that prick testing can lead to a great deal of false positives with up to 80 percent of children displaying a positive reaction to foods on skin testing, but the true clinical relevance is much lower. Blood tests now available can directly assess the IgE antibody levels to specific foods. A higher level, indicates a greater chance the patient will react if directly challenged with that food. It is definitely an avenue worth pursuing in your most severe eczema patients.

Consultation is worth considering. Partnering our efforts may just lead to the relief our patients deserve. In other words: you scratch my back, I’ll scratch yours!

---

New In Your Practice

Nuvo No More. In a letter in Pediatrics (116: 1612), dermatologist Dan Pearlman, MD confessed that the main ingredient for his much-touted Nuvo Lotion was actually Cetaphil cleanser (Galderma). He had previously published a report in Pediatrics—reported last December in Practical Dermatology—suggesting that his proprietary product was a non-toxic and effective way to treat head lice. The study indicated that the lotion was 96 percent effective after three treatments with a 94 percent long-term cure rate. It was only available in his office, and patients paid upwards of $300 for the product. Galderma had no knowledge of the use of Cetaphil by Dr. Pearlman, nor did the company support the study. Pearlman claimed that his research was meant to inspire other researchers and that he attempted to get drug companies to market his product so that they could turn a profit, but was denied. The good news, if any: should legitimate trials pan out, Cetaphil might be an inexpensive, non-toxic lice treatment.