

Preface

Modification of the Personal Environment as Treatment: Irritant and Allergic Dermatitis and Contact Urticaria



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Editor

“Skin Allergy” is a plain language term that is patient-centric. Patients with dermatitis may suffer tremendous personal and occupational burden; they often question the role of environmental allergens as a cause of their symptoms. Our answers are complicated! The labels of atopic dermatitis, allergic contact dermatitis, and contact urticaria are not terribly useful to patients when they try to understand the role of allergy in their symptoms. This issue intentionally avoids the use of the terms “atopic” and “allergic contact” dermatitis in article titles, as these entities frequently overlap.

I often explain to patients that “there is no good treatment for the symptom of itch,” and we have to treat the underlying skin disease. Abreu and Kim explain much about the mechanism of itch in their article in this issue! The “underlying neuroimmune cross-talk” between skin allergy and nerve cells has provided some potential new therapeutic targets, including MRGPRB2/X2-mast cell signaling axis in contact dermatitis. Lio and colleagues outline the complexity of mechanisms in skin allergy and emerging therapeutic targets.

Nguyen and Chen describe how distribution of dermatitis can provide clues to environmental causes. This can help guide selections of allergens for patch testing. Brown and Yu discuss patch testing in children, as we now recognize that allergic contact dermatitis occurs frequently in children both with and without atopic dermatitis.

Patch testing allows personalized avoidance strategies for allergic contact dermatitis. We need to be clear that allergens are not something we can, or should, eliminate from the planet in most cases. Jacob-Soo reviews epidemics of allergic contact dermatitis. Identification of the allergen causing an epidemic is often followed by

introduction of an alternative to replace the offending allergen, which often also turns out to be a contact allergen (the Dillarstone effect). Siegel and colleagues describe the difficulty in identifying new contact allergens and the laboratory techniques that can help.

Occupational skin disease requires great depth of knowledge due to the unique exposures in many occupations. Holness explains data collection on occupational dermatology diagnoses and reviews literature on impact (function and cost) of occupational skin disease. She summarizes benefits of screening, given that other preventive measures, for example, skin care with emollients, have not been shown to be helpful. This is likely because dermatitis is multifactorial, and emollients do not help all patients with dermatitis.¹

When allergic contact dermatitis occurs in healthy skin, avoidance of identified allergens can be curative. Allergic Contact Dermatitis, with focus on conventional patch testing, was the subject of the July 2020 *Dermatologic Clinics*. Scheman and colleagues update us on alternative products to help our patients with allergic contact dermatitis to “conventional,” nonprotein, contact allergens.

When environmental allergies develop in chronically inflamed skin due to genetic barrier dysfunction (“atopic dermatitis”) or wet work, potential allergens expand to include those that are less common in the general population, such as proteins in food and commensal organisms. The immune response may be Th2 skewed and involve both delayed and immediate-type hypersensitivity. Gimenez-Arnau and Maibach discuss the many causes of contact urticaria. Murase and colleagues detail the many causes of protein contact dermatitis and urticaria.

Mowad and Bailiff discuss mimics of dermatitis. Knowledge of these mimics makes dermatologists a critical member of the health care team for patients with dermatitis. Brar explains the expertise that allergists can offer for patients at risk for immediate-type hypersensitivity. We now recognize that immediate-type hypersensitivity begins with percutaneous sensitization in most cases.

We still lack a reliable test to detect protein (eg, food or microbial) triggers for dermatitis. Skin prick tests are not specific for protein contact dermatitis. Atopy (protein) patch tests would be expected to be more specific² but are not yet standardized. Dr Brar reminds us that food avoidance may contribute to risk of immediate-type hypersensitivity with reintroduction of the food. Allergists can help us assess this risk.

Dermatitis truly is complicated! The mechanisms of allergy are complex, as is the connection to itch. Much dogma is at least partially wrong, including direction to all patients to apply moisturizers, to take antihistamines for itch, and to ignore the potential contribution of ingested foods or food additives to dermatitis.

I hope that this issue will broaden our collective thinking and better connect with our patients who suffer compromise of work and quality of life as a result of skin allergy.

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