Jenny Murase, MD, is an associate clinical professor in the department of dermatology at the University of California, San Francisco. She is also director of patch testing at the Palo Alto Foundation Medical Group and is on the board of the American Contact Dermatitis Society.

If you have suggestions for topics or content for Clinical Pearls, contact Dean Monti at **dmonti@aad.org**

Clinical Pearls

Clinical Pearls will help prepare residents for the future by providing them with five top pearls about what they should know about a specific subject area by the time they complete their residency.

Contact dermatitis

By Jenny Murase, MD

Pearl #1. Don't forget to patch test your chronic adult atopic dermatitis (AD) patients! AD patients have immunologic predisposition to develop allergic contact dermatitis (ACD) and have also been exposed to more moisturizers over the years, as well as topical corticosteroids and antibiotic ointments, compared to others, so their risk of developing ACD is increased. Adult AD patients need to be thoroughly screened for topical medication, fragrance, emulsifier, surfactant, and preservative allergy.

Pearl #2. If your AD patients on dupilumab continue to have persistent dermatitis on their face, neck, and hands but their body has substantially cleared, you need to consider patch testing them. In the past we used "sledgehammers" for the immune system that shut down all inflammatory mediators, utilizing medications like prednisone, azathioprine, cyclosporine, and mycophenolate mofetil in our AD patients, that shut down both Th1 (cell mediated immunity) and Th2 (the allergic arm of our immune system). So the clinician treating the adult eczematous dermatitis did not have to distinguish between AD and ACD. Now that we have a biologic designer drug like dupilumab which focused on the Th2 component, allergic contact dermatitis (largely Th1) will not be suppressed as effectively, and patients will not clear sufficiently on dupilumab if you do not detect their ACD. Now **effective management requires you to perform the appropriate diagnostic testing for your patients.**

Pearl #3. If you plan to do patch testing in your practice, it is important to get familiar with series available to your patients above and beyond the True Test [40 allergens] and the NACDG (North American Contact Dermatitis Group) [70-80 allergens]. With a True Test only one third of patients are fully evaluated for their contact allergens, and one third of ACD diagnoses are missed without supplemental allergens to the NACDG. Supplemental trays such as the fragrance, emulsifier/external agents, cosmetic, sunscreen, corticosteroid, and others can increase diagnostic yield.

Pearl #4. One mistake I tend to see out of residency is that ACD is not entertained as much as it should be. **Consider ACD in all patients with recalcitrant eczematous dermatitis.** Although there are certain patterns of dermatitis that suggest ACD (for example, the hands, eyelids, face, neck, lips, and perianal area), even if it is more diffuse there could be an allergic component to the recalcitrant rash.

Pearl #5.There are challenges to dermatologists interested in performing patch testing in academic practices and large group practices that are hospital based. The technical fee for patch testing does not have a professional component (wRVU = work Relative Value Unit) so the dermatology department does not receive revenue. Only revenue for the evaluation and management services are paid to the physician group. Alternative business models used throughout the United States are detailed in this reference. You can use this article to approach a future employe if you are interested developing this subspecialty out of residency and building a lucrative and thriving patch test practice for the academic center or medical group.

Reference for Pearl 1: A Pragmatic Approach to Patch Testing Atopic Dermatitis Patients: Clinical Recommendations Based on Expert Consensus Opinion. *Dermatitis*. 2018: 27(4).

Reference for Pearl 2: Suresh R, Murase JE. The Role of Expanded Series Patch Testing in Identifying Causality of Residual Facial Dermatitis Following Initiation of Dupilumab Therapy. *Journal of the American Academy of Dermatology Case Reports*. 2018:4(9):899-904. https://doi.org/10.1016/j.jdcr.2018.08.027.

Reference for Pearl 3: Zhu TH, Suresh R, Warshaw E, Scheinman P, Mowad C, Botto N, Brod B, Taylor JS, Atwater AR, Watsky K, Schalock PC, Machler BC, Helms S, Jacob SE, Murase JE. A Review of the Medical Necessity of Comprehensive Patch Testing. *Dermatitis*. 2018:29(3).

Reference for Pearl 4: A Pragmatic Approach to Patch Testing Atopic Dermatitis Patients: Clinical Recommendations Based on Expert Consensus Opinion. *Dermatitis*. 2018:27(4).

Reference for Pearl 5: Zhu TH, Suresh R, Farahnik B, Jeon C, Warshaw E, Scheinman P, Mowad C, Botto N, Brod B, Taylor JS, Atwater AR, Watsky K, Schalock PC, Machler BC, Helms S, Jacob SE, Murase JE. Survey of Patch Test Business Models in the United States by the American Contact Dermatitis Society. *Dermatitis*. 2018:29(2), 85-88. DR