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Clinical Pearls

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

Management of dermatitis and pruritus

By Jenny Murase, MD, FAAD

Pearl #1: Ask staff to conduct a numeric rating scale (NRS) at every intake for your patients presenting with itch and/or rash. Also consider having staff ask about sleep disturbance and distraction from activities during the day due to itch. The pruritus NRS is phrased, “In the past 24 hours, what is the worst itch you have experienced on a scale of zero to ten.” Itch is invisible but has a dramatic impact on quality of life. You will approach your patient completely differently if they have an NRS of nine versus an NRS of one. All too often, our most miserable and undertreated patients have little to see on the skin, but their degree of pruritus is life-altering and goes unnoticed by those caring for them.

Pearl #2: If you have a younger patient with severe pruritus who has little to see on the skin, be afraid. Use the diagnostic testing that we have available to screen for malignancy and metabolic conditions (see doi: 10.1016/j.jaad.2025.03.047 for a guide). Obtain a chest X-ray to rule out Hodgkin’s Lymphoma. Screen for hepatic, renal, thyroid, celiac, and parathyroid diseases; diabetes; and blood dyscrasias. We have powerful therapeutics now available to control pruritus — wield them responsibly by doing the appropriate testing for your patient prior to initiating treatment.

Pearl #3: Understand that there is a difference between a reasonable therapy that fails the patient and the physician who fails the patient due to inappropriate or insufficient diagnostic testing. In performing nearly 7,000 consultations for dermatologists and allergists in the Bay Area, I have repeatedly cleared patients labeled as “dupilumab failures” with “topical steroid withdrawal” using topical steroids and dupilumab in otherwise purportedly recalcitrant cases (see reference 3 for a case of a woman who was bedbound and unable to work for years). By uncovering the underlying allergic contact dermatitis with patch testing or identifying a causative organism with bacterial culture followed by decolonization of their home environment, you will find that our relatively safer systemic therapeutics work much more effectively when underlying concomitant conditions are identified and treated.

Pearl #4: Master the Yin-Yang. Use a graphic when describing the impact of skin disease and therapeutics during patient care to improve patient understanding and compliance with proposed therapy. Explain the difference between therapeutics impacting cell-mediated immunity that suppress

the “soldiers” of the immune system (the Th1/Th17 component) that require monitoring of blood counts versus those that solely affect the Th2 arm. Explain how both immunologic eruptions of aging (“itchy red bump disease” in the elderly) and pregnancy can shift patients to become more Th2-dominant.

Pearl #5: Understand how the balance between the Th1, Th2, and Th17 arms of the immune system is affected by therapeutics and how they result in paradoxical reactions. Th2 blockade with agents such as dupilumab, tralokinumab, and lebrikizumab will reduce Th2 immunity and increase Th17 signaling, resulting in psoriasiform reactions in our patients with eczematous dermatitides. IL-17 or 12-23 blockade will blunt Th17 activity and increase Th2 signaling, resulting in eczematous dermatitis in our psoriasis patients. Suppression of Th1 axes can result in “psoriasiform spongiotic dermatitis” that clinically mixes both psoriasis (from the Th17 relative increase) and eczema (from the Th2 relative increase). **DR**

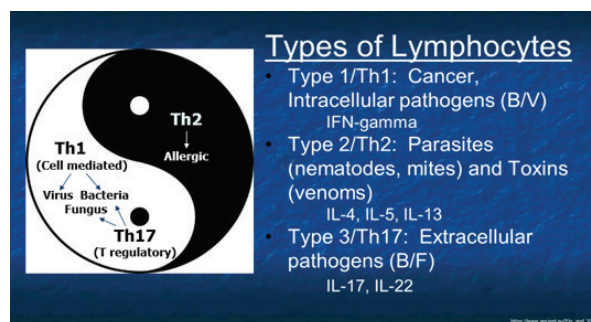


Figure 1: A graphic depiction of the Yin-Yang Balance of Th1, Th2, and Th17 pathways that can be used in patient care. Th1 cell-mediated immunity affects intracellular pathogens such as intracellular bacteria and viruses and cancer. Th17 affects extracellular pathogens such as extracellular bacteria and fungus. Th2 is the allergic arm of the immune system and in the past played a role fighting parasitic infection and toxins.

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