Autoimmune Testing Helps Guide Urticaria Tx

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SCOTTSDALE, ARIZ. — Autoimmune testing may not be perfectly sensitive, but it can help to guide therapeutic decisions regarding patients with severe, recalcitrant chronic idiopathic urticaria.

By simple definition, chronic idiopathic urticaria is characterized by the appearance of transitory, pruritic wheals that occur on a daily basis for a period of at least 6 weeks, "but in reality, we know that many of our patients have disease lasting months to years," Dr. Diane R. Baker said at the annual meeting of the Noah Worcester Dermatological Society.

"It can be very resistant to treatment and has an impact on quality of life that is similar to what we see in our severe atopic dermatitis patients," said Dr. Baker, a dermatologist in private practice in Portland, Ore., and former president of the American Academy of Dermatology.

Research conducted in the past 10-15 years has ushered in a new era of understanding about the etiology of chronic idiopathic urticaria. It is now known that approximately 40% of patients demonstrate autoimmune dysfunction.

These patients often have other autoimmune diseases and demonstrate a reduced histamine release from the basophils.

Dr. Baker advised using this new information to one's advantage in clinical practice by inquiring about a chronic urticaria patient's personal or family history of autoimmune disease, conducting autologous serum skin testing (ASST), and/or ordering a functional anti-Fc(ε)RI autoimmune test.

ASST is performed by injecting 0.05 cc autologous serum, 0.9% saline, and 10 mcg histamine into three separate sites on the volar forearm. A positive result, read at 15 and 30 minutes, comprises a skin reaction at the serum site that is 1.5-mm greater than any reaction at the saline control site and more than 50% larger than the histamine response.

The reaction in a patient with autologous chronic idiopathic urticaria is "across-the-room positive," she said.

Results of this test sometimes correlate well with ex vivo autoantibody testing for functional (histamine-releasing) anti-Fc(ε)RI. This test is performed at an external laboratory by combining at least 1 cc of the patient's serum with positive and negative controls and donor basophils. The supernate is assayed for histamine, with a positive result defined as a histamine release from the patient's serum that is greater than the mean plus two standard deviations of the control, Dr. Baker explained.

These autoantibodies are usually not detectable in normal, healthy controls, and although they can be identified in patients with other skin diseases in a nonfunctional form, functional anti-Fc(ε)RI antibodies appear to be specific to patients with chronic idiopathic urticaria.

One source for autoimmune testing is the IBT Reference Laboratory in Lenexa, Kan., noted Dr. Baker, who said she had no financial interest in the company nor any other company mentioned in her talk.

The functional anti-Fc(ε)RI autoantibody test and the AAST are an imperfect measures, however, because negative test results do not necessarily rule out autoimmunity as a basis for urticaria, she said.

The tests may draw an incomplete picture of abnormalities in patients with autoimmune chronic idiopathic dysfunction. For example, results do not correlate with basophilic dysfunction, which improves considerably when patients go into remission, whether or not they have a positive autoantibody test.

Nonetheless, the two-pronged approach to identifying autoimmunity may have clinical relevance as important preliminary information, Dr. Baker said.

"I think a positive ASST or demonstration of the presence of functional antibodies helps support your decision about whether to put a patient on something more than an antihistamine, [such as] an immunomodulatory treatment," she said.

In her experience, patients with positive results in either test seem to have more severe and resistant disease that requires higher than usual doses of antihistamines, often in conjunction with systemic corticosteroids or immunomodulatory agents such as methotrexate or cyclosporine.

Case reports generally guide this immunomodulatory therapy, although in one randomized, double-blind study cyclosporine added to an antihistamine produced marked improvement in two-thirds of 99 patients (J. Am. Acad. Dermatol. 2006;55:705-9). ■