Antibody Profile Linked to Scleroderma Phenotype

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ABANO TERME, ITALY — Distinct serologic subsets of patients with scleroderma have been identified and their autoantibody profiles correlate with specific clinical phenotypes, Dr. Carlo Maurizio Montecucco said at a congress on skin, rheumatism, and autoimmunity.

The following four antibodies, noted by Dr. Montecucco, that may be found in the serum of patients with scleroderma are found in a mutually exclusive fashion and can be used as prognostic markers:

► **Anticentromere.** These antibodies are found in 20%-30% of patients with scleroderma, although geographic and ethnic differences exist, he said. Clinically, patients with these antibodies have limited cutaneous involvement but have severe Raynaud's phenomenon that can result in ulceration and amputations.

'There are some preliminary data suggesting that the titer of these antibodies might increase just before the occurrence of scleroderma renal crisis.'

Anticentromere antibodies also are typically found in patients with CREST (calcinosis, Raynaud's, esophageal dysphagia, sclerodactyly, and telangiectasia) syndrome.

This subset of patients has little or no interstitial lung involvement. They generally have a good prognosis although they can succumb to isolated pulmonary hypertension, said Dr. Montecucco, chair of rheumatology, University of Pavia, Italy.

► **Antitopoisomerase I.** Patients who have antibodies targeting epitopes on topoisomerase I tend to have diffused or intermittent cutaneous involvement, pulmonary fibrosis, and interstitial lung disease, he said. The prognosis for the 15%-20% of patients with this autoantibody is poor.

► **Antinucleolar.** Among this group of autoantibodies, the most clinically significant are those that are directed against the small nucleolar protein fibrillarin. The 4% of scleroderma patients with antifibrillarin antibodies typically have limited cutaneous involvement but are at high risk of pulmonary hypertension and arthritis.

These antibodies are also observed in the rare case of scleroderma renal crisis occurring in patients who have only limited cutaneous disease, he said.

► **AntiRNA-polymerase I and III.** Patients with antiRNA-polymerase antibodies have diffuse cutaneous disease and cardiac involvement, and are at high risk for scleroderma renal crisis.

The prevalence of this group of antibodies is highly variable according to geography. Among whites in the United States and the United Kingdom with diffuse cutaneous involvement, an estimated 22%-47% of patients have these antibodies.

"In contrast, in our experience in Italy, only 14% of patients with diffuse cutaneous involvement are positive for these antibodies," Dr. Montecucco said.

In Italy, the incidence of scleroderma renal crisis also is low, he noted. More definitive data on the possible relationship between antiRNA-polymerase antibodies and renal crisis may be available in the future, as an enzyme-linked immunosorbent assay (ELISA) test for these antibodies has now become commercially available and can be used for more routine screening.

The ELISA test also may allow clinicians to follow fluctuations in antibody titers. "There are some preliminary data suggesting that the titer of these antibodies might increase just before the occurrence of scleroderma renal crisis," he said. ■

A Patient's Next Steps After a Dx

The Agency for Healthcare Research and Quality has released a brochure to help patients following illness diagnosis. "Next Steps After Your Diagnosis: Finding Information and Support" includes a list of 10 questions that patients should ask their physicians. The brochure is available by visiting www.ahrq.gov/consumer/diaginfo.htm.