

Antibody May Predict Rheumatoid Arthritis Years Before Symptom Onset

BY NANCY WALSH
New York Bureau

ORLANDO, FLA. — Long before the clinical manifestations of rheumatoid arthritis appear, a highly specific marker can be detected in a significant proportion of patients, a finding that provides a possible window of opportunity for earlier intervention, Dr. Floris A. van Gaalen said at the annual meeting of the American College of Rheumatology.

Autoantibodies to cyclic citrullinated peptides (CCP) were present in 93% of a cohort of 318 patients with undifferentiated arthritis who ultimately were diagnosed with rheumatoid arthritis, Dr. van Gaalen said at a press briefing.

By contrast, only 25% of CCP-negative patients were later found to have rheumatoid arthritis.

"Today we are trying to treat patients with rheumatoid arthritis as early as possible to prevent long-term disability and improve quality of life, but the problem with early treatment is that you need a precise diagnosis. Often that can be

difficult with the initial work-up," he said.

Testing for anti-CCP antibodies is done with an enzyme-linked immunosorbent assay-based blood test.

"The absence of anti-CCP antibodies does not rule out the possibility of rheumatoid arthritis, but suggests the patient with joint symptoms is at low risk," explained Dr. van Gaalen of Leiden (Netherlands) University Medical Center.

Patients with anti-CCP antibodies also tended to have more severe disease.

"We don't know yet if early treatment of these patients, before the disease is fully established, will be more effective, but we are investigating this now," he noted.

Citrullination is a process in which proteins undergo posttranslational conversion of peptidyl-arginine to peptidyl-citrulline. This has been proposed as an initiating event

in autoimmune disease.

In a recent case-control study of patients from the Northern Sweden Health and Disease Study and the Maternity cohorts of Northern Sweden, blood samples obtained a median of 2.5 years before diagnosis

of rheumatoid arthritis were tested for CCP positivity. The prevalence of autoantibodies was 33.7% for anti-CCP, compared to 16.9% for IgG rheumatoid factor (RF), 19.3% for IgM-RF, and 33.7% for IgA-RF (Arthritis Rheum.

48[10]:2741-49, 2003).

In another series from Brigham and Women's Hospital, Boston, investigators reported that anti-CCP was more useful in the diagnosis of rheumatoid arthritis than was RF. They found that the sensitivity and specificity of anti-CCP was 66.0% and 90.4%, respectively, compared with 71.6% and 80.3% for RF (Ann. Rheum. Dis. 62[9]:870-74, 2003).

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