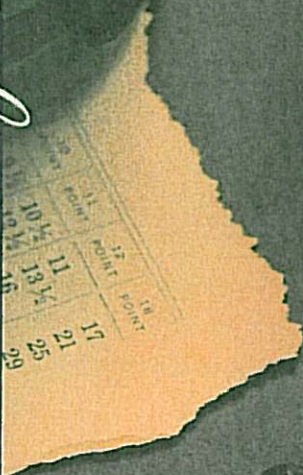


A Positive ANA Test.

A Positive ANA test. What does it mean?



**Lupus Foundation of America,
Illinois Chapter**

Robert S. Katz, M.D.
Associate Professor of Medicine

Rush University Medical Center

A Positive ANA test. What does that mean?

A positive antinuclear antibody (ANA) test indicates your patient may have an autoimmune disease, such as systemic lupus erythematosus (SLE), Sjogren's syndrome, vasculitis, poly-dermatomyositis, autoimmune liver disease, vasculitis, scleroderma, or mixed connective tissue disease. But a positive result is inconclusive. For example, while most patients with lupus will have a positive ANA test, most people with a positive ANA test do not have lupus. The production of high affinity antibodies that bind to self determinants is an important feature of lupus and other autoimmune rheumatic diseases.

The pattern of the antinuclear antibodies (homogeneous, speckled, peripheral, or nucleolar) shown on the test provides little specific diagnostic information. A high titer of antinuclear antibodies does not provide prognostic information. There are, however, additional antibody tests that can be ordered to further evaluate the patient for a specific type of autoimmune disease.

Although more than 30 nuclear antigen-antibody specificities have been identified,

certain tests can be clinically helpful for diagnosis, and sometimes to follow treatment responses. These include the anti-DNA antibody test, anti-SSA (Sjogren's syndrome A antigen) antibodies, anti-SSB (Sjogren's syndrome B antigen) antibodies, anti-Sm (for Smith antigen) antibodies, anti-RNP (ribonucleoprotein) antibodies, anti-SCL-70 (scleroderma) antibody test, anticardiolipin antibodies, a lupus anticoagulant test and ANCA (anti-neutrophil cytoplasmic antibodies).

Anti-DNA antibodies are associated with lupus, assuming the patient's clinical picture supports a diagnosis of SLE. Antibodies form against native (double-stranded) DNA in patients with SLE, but not usually in patients with other rheumatic diseases.

Antibodies to Sjogren's syndrome A antigen (also known as Ro antigen) are found principally in patients with Sjogren's syndrome and lupus. Sjogren's syndrome B antibodies are associated with Sjogren's syndrome only.

Anti-Sm antibodies are fairly specific for SLE, but most lupus patients do not have

elevated levels. Anti-RNP antibodies sometimes predict mixed connective tissue disease or a connective tissue overlap syndrome. Anti-SCL-70 antibodies correlate with scleroderma. Anticardiolipin antibodies and lupus anticoagulant antibodies may indicate a propensity for thrombosis and miscarriages. Antineutrophil cytoplasmic antibodies correlate with Wegener's granulomatosis and other types of vasculitis.

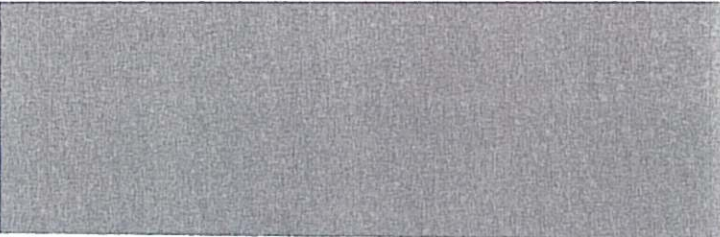
The physician's clinical evaluation is more important than antibody tests in determining whether a patient has an autoimmune disease. Many people with low or even high titers of antinuclear antibodies have no evidence of clinical illness, although testing positive probably indicates a susceptibility to lupus and other autoimmune conditions, including Hashimoto's thyroiditis, vasculitis, polymyositis, etc. Antinuclear antibodies tend to run in families.

Thus, patients may be serologically active but clinically quiescent. In addition to high titers of antinuclear antibodies, these patients may also have positive anti-DNA tests and low C3

and C4 complement levels without clinical signs of active disease or objective physical findings suggestive of a systemic inflammatory condition. Examples of objective findings of an autoimmune disease include an extensive rash over the face or elsewhere, joint swelling, proteinuria, thrombocytopenia and pleural or pericardial effusions.

Activated antigen-antibody complexes can lower the various components of complement in the blood. Therefore, low serum levels of C3 and C4 complement together with the presence of autoimmune antibodies often indicate the presence of activated immune complexes. However, low complement levels and autoimmune antibodies do not, by themselves, indicate the type or severity of clinical illness.

It is difficult to evaluate subjective symptoms, such as pain and fatigue, in patients with a positive ANA test when those symptoms cannot be objectively verified. For example, patients with fibromyalgia or migraine may sometimes have a positive ANA test but not lupus.



Finally, a positive ANA test is not a good indication of a patient's response to treatment, because the antibodies remain in blood even with treatment. When a patient with an autoimmune, inflammatory disease is prescribed steroids, the patient's markers of inflammation, such as the sedimentation rate and C-reactive protein, may change. However, the autoimmune antibodies may not, although anti-DNA antibodies do usually fall and decreased complement levels increase with successful treatment.

Robert S. Katz, M.D.

Chairman, Medical Advisory Board
Lupus Foundation of America, Illinois Chapter

Associate Professor of Medicine
Rush University Medical Center
Chicago, Illinois

Lupus Foundation of America, Illinois Chapter

Since 1973, the Lupus Foundation of America, Illinois Chapter (LFA) has worked diligently to inform, educate, and promote awareness and understanding of lupus, and to support those affected by the disease. As the number of people diagnosed with lupus rises each year, the foundation expands to better serve lupus patients, their families and friends, the medical community, and the general public.

The Lupus Foundation of America, Illinois Chapter offers a variety of programs and services to those affected by lupus and to the general public, including free community educational meetings; numerous support groups held throughout the state; a website providing up-to-date information on many issues related to lupus; regular newsletters reporting cutting-edge developments in the treatment of the disease; a toll-free information and referral line, providing timely and accurate responses to hundreds of inquiries each year; a trained Speakers Bureau; a variety of public awareness and advocacy initiatives; and the "Living with Lupus" Grant Program designed to assist Illinois lupus patients with financial needs not covered by other available resources.



Lupus Foundation of America, Illinois Chapter

20 E. Jackson Boulevard, Suite 1150
Chicago, Illinois 60604

800-2LUPUS2 • www.lupusil.org

03CHG0489 • 0706

A positive ANA test. What does it mean? • Robert S. Katz, M.D.



Lupus Foundation of America, Illinois Chapter
20 E. Jackson Boulevard, Suite 1150
Chicago, Illinois 60604
