

A Positive ANA Test.

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Lupus Society of Illinois

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A Positive ANA test. What does that mean?

A positive antinuclear antibody (ANA) test indicates a person could 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 people with lupus will have a positive ANA test, most people with a positive ANA test do not have lupus. An antibody is a protein in the body that glues itself on to an antigen. Usually the antigen is a foreign substance such as the flu virus, but sometimes antibodies can attach to antigens that are part of the body.

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 a 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-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.

Anti-SSA (Sjogren's syndrome A antigen) antibodies, Antibodies to Sjogren's syndrome A antigen are found principally in patients with Sjogren's syndrome and lupus. Sjogren's syndrome B antibodies are associated with Sjogren's syndrome only.

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Anti-Sm (for Smith antigen) antibodies are fairly specific for SLE but most lupus patients do not have elevated levels.

Anti-RNP (ribonucleoprotein) antibodies sometimes predict mixed connective tissue disease or a connective tissue overlap syndrome.

Anti-SCL-70 antibodies correlate with scleroderma, but their presence in the blood is only significant if the patient has the symptoms or physical findings of scleroderma.

Anticardiolipin antibodies and the lupus anticoagulant may indicate a propensity for thrombosis and miscarriages.

ANCA (anti-neutrophil cytoplasmic antibodies) correlate with vasculitis.

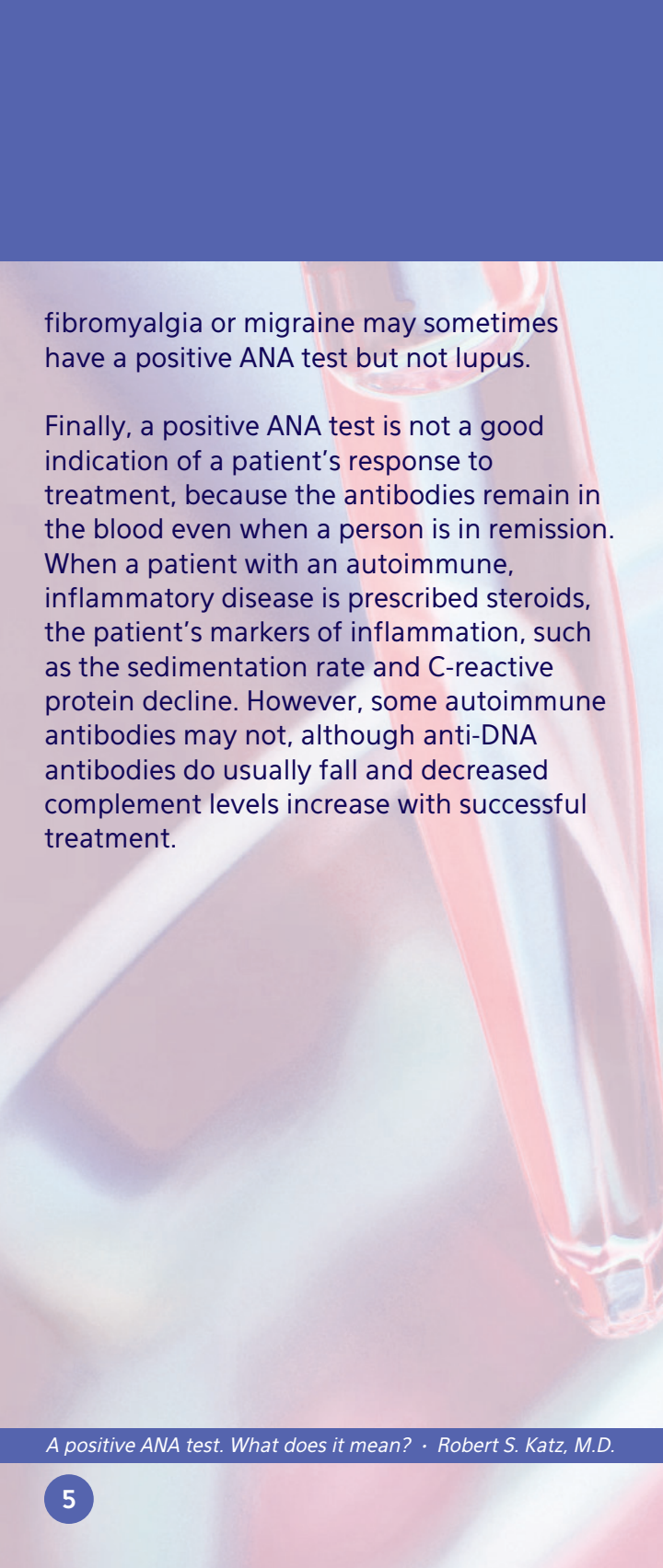
The physician's clinical evaluation is more important than antibody tests in determining whether a patient has an autoimmune disease. Many people with low or even high titers of antinuclear antibodies have no evidence of clinical illness and other autoimmune antibodies. Although testing positive probably 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 with autoimmune antibodies but clinically quiescent. In addition to high

titers of antinuclear antibodies, these patients may also have 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, protein in the urine testing with, a low blood platelet count and pleural or pericardial effusions (fluid accumulating in the lung and heart).

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 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 the blood even when a person is in remission. 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 decline. However, some autoimmune antibodies may not, although anti-DNA antibodies do usually fall and decreased complement levels increase with successful treatment.

Lupus Society of Illinois

The Lupus Society of Illinois (LSI), formed in 1973, is the Midwest's leading non-profit health organization dedicated to finding the causes and cure for lupus. The LSI's mission is to promote lupus awareness and complement the work of healthcare professionals by providing personalized resources for the lupus community while supporting research.

The LSI is the only organization in Illinois committed to assisting lupus patients and their families cope with this devastating disease. Programs and services include:

- Patient education programs and materials
- Referrals to physicians, community services, resources, and assistance
- Health educators/navigators available to answer questions and provide medically sound information about lupus
- Information and updates from local and international lupus medical experts
- Local events and support groups
- Newsletters and alerts
- Living with Lupus grant provides financial assistance for a lupus-related expense to qualifying applicants

LSI's programs and services are accessible via phone, online and in-person. The Lupus Society of Illinois is a non-profit 501(c)3 organization. Our programs and services are funded through the generosity of individuals, corporations, foundations and special events.



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