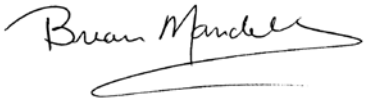
# Examine before ordering: An algorithm unchanged by new tests

I have always been irked when doctors reflexively order panels of immunologic tests when evaluating patients with "arthritis," possible vasculitis, or other autoimmune diseases. The serologic marker of an immune response to an often nonpathogenic antigen should not define a clinical diagnosis. Experienced clinicians, well-versed in the nuances of systemic autoimmune diseases such as myositis or scleroderma that have distinguishable clinical subsets, can use specific serologic tests to help focus the diagnosis and the approach to follow-up. But indiscreet ordering of batteries of antinuclear antibody tests, "screening tests for vasculitis," or rheumatoid factor tests to evaluate arthritis that has not been carefully clinically characterized is neither cost-effective nor clinically wise.

We rheumatologists may have inadvertently encouraged this practice. We teach about the prevalence of specific autoantibodies in patients with specific, accurately diagnosed autoimmune disorders as opposed to that in the general population (ie, the test's sensitivity and specificity). But that is different than using a test to diagnose a specific disease in an ill patient with a heretofore undiagnosed condition (ie, the test's predictive value). When I ask trainees or nonrheumatologists, "Why order all those tests?" the response I often get is that they thought the rheumatologist would want them when he or she was consulted. The fact that I also see our rheumatology fellows requesting the same tests before fully evaluating the patient clinically suggests that we have not done a great job at explaining the clinical utility and limitations of these tests. A serologic test should be used to strengthen or refute the clinician's preliminary diagnosis, depending on the test's specificity and sensitivity. It should not be used to generate a diagnosis.

So with these concerns, why would we invite a paper encouraging the use of the relatively new anti-cyclic citrullinated peptide (anti-CCP) test to evaluate patients with possible rheumatoid arthritis (Bose and Calabrese, page 249)?

As discussed in that paper, this test has characteristics that are useful when evaluating patients with polyarthritis compatible with the diagnosis of rheumatoid arthritis. Specifically, this test, unlike the traditional test for rheumatoid factor, can help discern whether the arthritis is a reaction to an infection like hepatitis C or endocarditis. Like rheumatoid factor, anti-CCP may precede the appearance of clinically meaningful arthritis and helps to predict prognosis in established rheumatoid arthritis. But, like other serologic tests, the anti-CCP test cannot supplant the listening ears and examining fingers of the clinician in establishing the pretest likelihood of the diagnosis. Clinical evaluation must precede laboratory testing.



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