

CLINICAL SPECIFICATIONS

ASCA + ANCA

Function:

Saccharomyces cerevisiae, baker's yeast, contains Chl1p, a putative helicase with human homologs (anti-*Saccharomyces cerevisiae* antibody – ASCA), which is required for DNA repair, recombination, transcriptional silencing and aging. Anti-neutrophil cytoplasmic antibodies (ANCA) are a group of autoantibodies against antigens in the cytoplasm of neutrophil granulocytes and monocytes.

Antibodies Appear:

Behçet's Syndrome with GI Involvement¹
 Crohn's Disease^{1,2}
 Long-term use of Anti-Thyroid Medication³
 Ulcerative Colitis⁵
 Vasculitis²

Known Cross-Reactions: Mannan,⁴ enteric bacterial antigens⁶

Clinical Significance:

Crohn's disease (CD) and Behçet's syndrome (BS) have clinical similarities such as oral and gastrointestinal ulcerations, erythema nodosum, arthritis and uveitis.¹ Patients with BS who present with gastrointestinal complaints have higher levels of ASCA than BS patients with no GI conditions.¹

Vasculitides, associated with serum positivity for ANCA affecting small- to medium-sized vessels, are commonly recognized as ANCA-associated vasculitis.² ANCA are detected in a number of autoimmune disorders, but are particularly associated with systemic vasculitis.² ANCA positivity has been shown in a high percentage of patients on long-term anti-thyroid medication; therefore, ANCA should be tested in patients receiving long-term anti-thyroid medications, and in patients with adverse reactions.³ Furthermore, patients with positive ANCA should be followed, and evaluated for definitive anti-thyroid therapy, to consider alternative treatment protocols.³

ASCA and ANCA are well-established markers in inflammatory bowel disease (IBD), and both may be associated with disease phenotype.^{1,2,5} In support of diagnosis of Ulcerative Colitis, the sensitivity and specificity of ANCA were 51% and 100%, respectively. ASCA presented sensitivity of 62% and specificity of 93% for Crohn's disease.⁵

References:

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4. Lindberg, et al. Antibody (IgG, IgA, and IgM) to baker's yeast (*Saccharomyces cerevisiae*), yeast mannan, gliadin, ovalbumin and betalactoglobulin in monozygotic twins with inflammatory bowel disease. Gut, 1992; 33(7):909-913.
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