CLINICAL SPECIFICATIONS

IMMUNE COMPLEX (saliva)

Function:

An immune complex is formed from the binding of an antibody to a soluble antigen. The bound antigen and antibody act as a specific antigen. Immune complexes can be subject to any of a number of responses, which can lead to autoimmune reactivity.

Antibodies Appear:

IgA-related renal disease[3]
Mucosal infection[3]
Sjogren's syndrome[2]

Known Cross-Reactions:

Clinical Significance:

The detection of salivary immune complex is an indication of antigen-antibody immune reaction and the activation of complement via the lectin pathway in the gastrointestinal tract. Immune complexes are formed when antigens bind with antibodies. In the periodontal pocket, salivary immune complexes can bind to activated complement component (C1).[1] Immune reaction against various antigens results in the production of antibodies in secretions including saliva. At low levels, these antibodies bind to the epithelial cell layer and to the additional antigens.[4] However, repeated exposure to food or bacterial antigens not only results in antibody production against them, but also antibody binding to antigen for immune complexes.

References:

1. Boackle. The interaction of salivary secretions with the human complement system--a model for the study of host defense systems on inflamed mucosal surfaces. Crit Rev Oral Biol Med, 1991; 2(3):355-367.
2. Hazi-Mihailović, et al. [Circulating immune complexes, immunoglobulin G, salivary proteins and salivary immunoglobulin A in patients with Sjogren's syndrome]. Srpski Arhiv za Celokupno Lekarstvo, 2009; 137(3-4):134-139.
3. Jones, et al. Polymeric IgA and immune complex concentrations in IgA-related renal disease. Kidney Int. 1990; 38(2):323-331.
4. Vojdani. Saliva immunoassay for detection of antibodies for cardiovascular disease. US Patent 7,258,994 B2, August 21, 2007.