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Circulating Immunocomplex

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CIC

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ICs Key Concepts



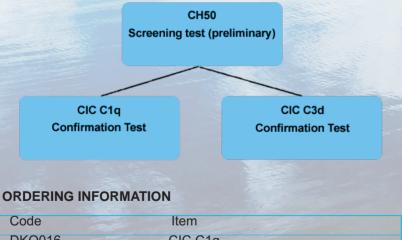
The availability of a panel of in vitro techniques for measuring ICs can now offer to the clinician a set of tools for a deep approach to immune-mediated diseases (see below). Among such techniques, the helpful ones can be considered those that measure the total hemolytic complement titer (CH50), the binding of C1q, C3d by ICs.

The sensitivity and specificity of a reduced CH50 limit the value of using this test for vasculitis screening unless painful, persistent urticarial lesions or purpura is observed. Thus, the CH50 has definite limitations but serves as a cost/effective, screening test before applying other fine techniques to indentify ICs disease.

However, WHO collaborative study for the evaluation of 18 of the methods (Lambert et al., J. Clin. Lab. Immunol. 1978:1, 1) most frequently used for detection of circulating ICs, presented that optimal screening for CICs might be achieved by parallel application of several different methods, using reagents of different specificity. Having in mind the above statement, we could suggest that simultaneous use of C1q-ELISA and C3-ELISA would be useful for CIC quantitative assessment data interpretation and help to explain the nature and pathogenic importance of CIC material detected in individual diseases. Effectively, each IC assay detect only certain classes and subclasses of immunoglobulins in IC material, size and conformation of complex, or fixed complement protein. The detection of immune complexes has not been shown to be essential in any clinical conditions but may be helpful in monitoring disease activity in systemic lupus erythematosus (SLE) and may provide useful diagnostic information in two rare

syndromes, Lyme arthritis and SLE-related syndrome, or other vasculitides.

A partial flow chart about the clinical application of ICs determination in the sera of patients with various IC-mediated diseases is enclosed.



Moreover, persistance of ICs in antigen excess, as occur in SLE, RA or chronic hepatitis often lead to a chronic form of vasculitis, in which a serial laboratory determination of inflammatory parameters, such as VES, PCR or circulating ICs

Code	Item	
DKO016	CIC C1q	
DKO017	CIC C3d	
DKO040	CH50	

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