CYREX® Laboratories

CLINICAL SPECIFICATIONS

MYOCARDIAL PEPTIDE

Function:

Myocardial Peptides make up heart structure tissues.

Antibodies Appear:

Acute Rheumatic Fever[6]
Autoimmune Myocarditis[1, 2]
Heart Disease[1, 2, 3]
Heart Trauma[3, 4, 6]
Rheumatic Heart Disease[6]

Known Cross-Reactions: gliadin[7]

Clinical Significance:

Myocardial Peptides are at higher levels prior to the onset of dilated cardiomyopathy, when heart dysfunction is undetectable, and will decline as the disorder evolves.[1, 2] It is important to screen patient's symptom-free relatives to identify those at risk, to aid in diagnosis during pre-clinical period and to potentially prevent the progression to disease state by implementing preventive therapeutic protocols.[2] Damage to heart muscle or pericardial tissue stemming from surgery, stab wounds or acute myocardial infarctions may result in an autoimmune response to myocardial antigens.[4, 6] Circulating autoantibodies appear 2-3 weeks after the event and subsequently drop between 3-8 weeks.[6] However, high levels of anti-myocardial antibodies have been shown to remain in cases involving a series of injuries over an extended period in which these antibodies can persist for months or years.[6] Due to a commonality in autoimmune heart disease and Celiac disease, patients presenting with autoantibodies to heart tissue, should be assessed for Celiac disease.[5]

References:

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2. Caforio, et al. Cardiac autoantibodies in dilated cardiomyopathy become undetectable with disease progression. Heart, 1997; 77:62-67.
3. Cleutjens, et al. Non-invasive diagnosis of ruptured peripheral atherosclerotic lesions and myocardial infarction by antibody profiling. J Clin Invest, 2008; 118:2979-2985.
4. Engle, et al. The postpericardiotomy syndrome and antiheart antibodies. Circulation, 1974; 49:401-406.
5. Frustaci, et al. Celiac disease associated with autoimmune myocarditis. Circulation, 2002; 105:2611-26182.
6. Twomey and Bernett. Immunofluorescence method for detecting anti-myocardial antibodies, and its use in diagnosing heart disease. Clin Chem, 1975; 21(13):1903-1906Vojdani and Tarash. Cross-reaction between gliadin and different food and tissue antigens, Food Nutri Sci, 2013; 4:20-32.
7. Vojdani and Tarash. Cross-reaction between gliadin and different food and tissue antigens, Food Nutri Sci, 2013; 4:20-32.