

1. Klin Med (Mosk). 2010;88(2):43-6.

[Clinical and pathogenetic significance of antibodies to antioxidative enzymes in patients with Raynaud's syndrome].

[Article in Russian]

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Abstract

Patients presenting with systemic scleroderma were found to have antibodies to antioxidative enzymes the levels of which increased with activity of the disease. Taking into account the important role of immune disorders in the development of systemic sclerosis, it can be conjectured that antienzyme antibodies may cause dysregulation of enzymatic systems. Serum antibodies were detected by the original modification of indirect enzyme immunoassay using immobilized antigenic forms of enzymes. All patients with high antibody titers presented with class II-IV Raynaud's syndrome (RS). Pathogenetic mechanisms of RS are complicated and poorly known, it is supposed to be a multifactor pathology associated with disturbances in neural, vascular, mediator, and immune systems. Reperfusion and free oxygen radicals may also contribute to the development of ischemia in RS. The antioxidative system is known to involve a number of enzymes that neutralize pathogenic effects of free oxygen species. Disturbance of equilibrium between aggressive and protective factors under pathological conditions leads to further aggravation of tissue lesions. The presence of antienzyme antibodies in the blood of patients with primary RS may be regarded as an unfavourable prognostic factor preceding a systemic disease of connective tissue.

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