Orel Nadiia, Molotiagin Dmitry

Character of changes in pentraxin-3 levels in patients with coronary artery disease

Kharkiv National Medical University Department of Internal Medicine No.2, Clinical Immunology and Allergology named after academician L.T.Malaya

Kharkiv, Ukraine

Scientific advisor: Prof. Kravchun P.G.

Introduction. Coronary artery disease (CAD) is one of the most common causes of death in developed countries, which determines the importance of studying its 81 pathogenesis. One of the pathogenetic mechanisms of atherosclerosis and CAD development is generalized or chronic inflammation.

Purpose of the study. We investigated one of the new markers of immune inflammation, pentraxin-3 (PTX-3), which is overexpressed in endothelial and smooth muscle cells, monocytes and macrophages, which are components of the vascular wall and atherosclerotic plaque. Its role in atherosclerosis has not yet been definitively clarified.

Materials and methods. For research purposes we made complex inspection of 110 patients with coronary artery disease. The control group included 25 healthy individuals.

Results. As a result of our studies, a probable increase in PTX-3 levels in all patients with CAD compared with the control group was established. Accordingly, the level of PTX-3 in the control group was 1.18±0.54 ng/ml, which is 65.40% less than in patients with coronary heart disease, where the value of this indicator was equal to 3.41±0.68 ng/ml (p<0.05).

Conclusion. Our data correspond to the results of other researchers. In the work of Haibo L. (2014) was conducted a research of 596 patients (467 men, 129 women, mean age 65.9±8.1 years), which showed that PTX-3 is inflammatory predictor of coronary heart disease. The level of RTX-3 in patients with coronary heart disease was 3.12±0.63 ng/ml, which was higher than in the control group. As follows, patients with coronary artery disease had higher levels of pentraxin-3 than in the control group, which indicates the activation of the immunoinflammatory process.