Heart disease prevention using ELI-ANCOR-Test

Early, preclinical detection of non-communicable diseases is cultivated in some countries (USA, UK, Russia, Israel) during the last 10-15 years and there is a pronounced tendency to its further development [4]. This branch of medicine has enormous potential due to a number of its advantages.

However, up to now nobody has been able to create a lab test that could be accepted for clinical use. Recently, there is information on the successful use of the lab test named ELI-ANCOR-Test for assessment of cardiac system functional state. Information that comes from physicians working with test is extremely interesting [1, 2, 3, 5, 6].

Here is what they report:

«Recently, the ELI-ANCOR-Test method, based on analysis of alterations in serum profiles of twelve different IgG class a-Abs, which are the markers of pathological changes in myocardium and blood vessel walls, became applicable to assess cardiovascular system condition.

At early stages of heart failure progress, the most typical are alterations in a-Abs profiles that reflect hemovascular haemostasis abnormalities; namely, changes in a-Abs profiles against antigens such as angiostatin (plasminogen derivative), NOS (NO-synthase), TrM-03 (platelet membrane antigen), ANCA.

During a considerably long initial stage of CHF emergence, the main mechanism that supports the disease progression is hemovascular homeostasis destabilization; namely, intravascular thrombogenesis activation, inflammation, endothelial dysfunction progression, vascular tone regulation impairment; these are reflected by secondary alterations in serum content of relevant a-Abs to angiostatin, NOS, TrM-03, ANCA.

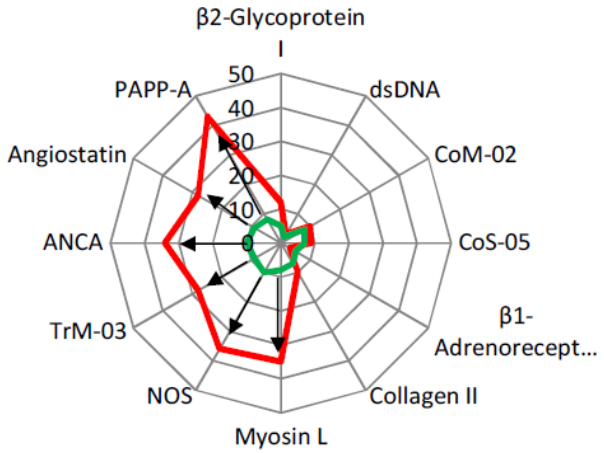

Chart of patient with incipient CHD. There're no symptoms yet. Alterations in hemovascular hemostasis are visible.

In the sequel, at more advanced stages of CHF progress, along with thrombotic disorders and diffuse disorders of myocardium microvascular blood flow, cardiomyocytes destructive changes of both degenerative and inflammatory nature directly become an important pathogenetic mechanism of heart failure that causes its further progression.

Therefore, in patients with severe myocardial dysfunction (systolic or diastolic), along with changes in a-Abs content that characterize hemovascular homeostasis abnormalities, significant deviations in a-Abs content against specific myocardial antigens CoM-02 (cardiomyocytes cytoskeleton antigen), Cos-05-40 (cytoplasmic antigen of cardiomyocytes) and cardiomyosin L, indicating both degenerative and inflammatory changes in myocard, are registered.

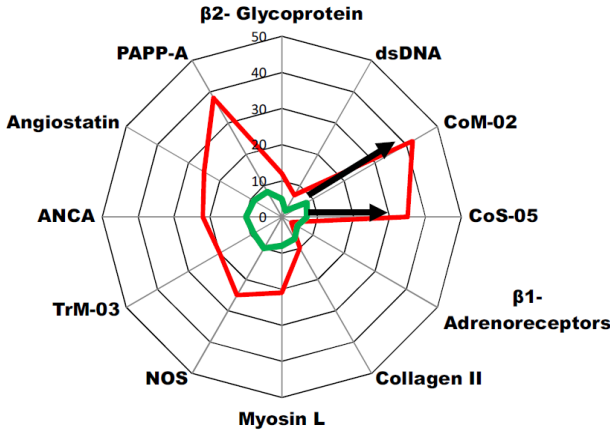

Chart of CHD patient with typical clinical picture. Both alterations in hemovascular hemostasis and degenerative alterations in myocardium are visible.

According to Lishnevskaya V. et al., it is typical of CHD patients with impaired left ventricle contractility (LV EF <45%) to have alterations in a-Abs titers to CoM-02 (in 83% of patients), in a-Abs titers to Cos-05-40 (in 87%) and in a-Abs titers to cardiomyosin L (in 72% of patients). The study shows that significant heart chambers enlargement in patients with heart failure is caused by pronounced destructive alterations in myocardium, resulting in reduction of functioning cardiomyocytes amount and substitution of connective tissue for these. This is accompanied by significant level deviation of a-Abs, «responsible» for lost structures, and explains negative correlation between left ventricle chamber size and a-Abs level against myocardium antigens».

Late degenerative-inflammatory changes in myocardium are practically irreversible. At this stage the doctor can do close to nothing to prevent the development of heart disease. But at early stages (hemovascular homeostasis disorder), in our opinion, the doctor can actively intervene and prevent the disease development. It is clear that blood viscosity and thrombogenesis have to be reduced, and vessels have to be protected. We believe that at this stage, amongst other measures, aspirin is highly recommended. I.e. everyone with high risk of CHD has to have annual ELI-ANCOR-Test check-up done. As soon as an early stage of heart disease (hemovascular homeostasis disorder) is detected, aspirin is to be prescribed for patients. This minimum can prevent (or defer for a long time) microvessels lesion and the onset of degenerative changes in myocardium, and, therefore, CHD and CHF.

References

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