

Possibility of Development of Recurrence of Stable Coronary Heart Disease in Presence of Such Risk Factors as Depression and Oxidative Stress

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Introduction. Depression (D) is a complex disorder that is associated with various pathophysiological processes. This makes it difficult to identify clinically useful diagnostic and prognostic markers, as well as treatment options. A major depressive disorder is 3–4 times more common in patients with coronary heart disease (CHD) than the prevalence in the population, which in turn increases the risk of cardiac mortality, and is also associated with an increased risk of developing secondary acute ischemic events.

The relationship between D and CHD may be related to common pathophysiological mechanisms such as the activity of inflammatory reactions, circulating inflammatory mediators, the accumulation of free radicals, dysfunction of the endothelium. The accumulation of free radicals in the endothelium of blood vessels leads to its damage and after to its dysfunction, this leads to the activation of pathological biochemical processes and the development of inflammatory reactions that lead to oxidative stress (OS). These processes together lead to the progression of atherosclerotic plaques and thickening of the arterial walls.

Aim, Materials and Methods. The aim of the study was to understand general mechanisms and interactions of D and CHD, which can be particularly useful in prevention of CHD, allowing to reconsider the attitude towards the use of antidepressants and antioxidants in patients with CHD (SCHD).

A retrospective case-control study included ambulatory patients at the age 45–65 years: 50 patients with recurrent SCHD and 50 patients with primary SCHD. The following is assessed in both target groups: manifestations of stable CHD (using structured interviews); OS parameters in the blood (MDA, GPx); quality of life level (QoL, questionnaire Q-les-Q by J. Endicott, short form, valid Latvian language version); D (long form of Geriatric Depression Scale by J. A. Yesavage and others, the valid Latvian language version GDS-LAT).

Results. The data obtained from 51 patients with primary SCHD and 50 relapses of SCHD: in P with primary SCHD, D was established in 25 cases, in P with relapse of SCHD – at 30. The mean score of the QoL was 63.5% of the total possible score in the group with primary SCHD and 61.1% in the group with relapse of SCHD.

GPx does not have any significant change in both groups. Further results will be reported.

Conclusions. There is a positive correlation between the level of D and the level of OS markers in patients with SCHD. In patients with recurrent SCHD and D, the level of OS markers in the blood will be higher than in patients with primary SCHD.