

**THE EFFECT OF BETA-BLOCKERS  
ON FACTORS OF FIBROSIS IN PATIENTS  
WITH CHRONIC HEART FAILURE ISCHEMIC HEART DISEASE  
COMBINED WITH DIABETES MELLITUS TYPE 2**

**Narizhna A. V., Zalubovska O. I.**

*Kharkiv National Medical University,  
Kharkiv, Ukraine*

**Introduction:** according to the world literature of chronic heart failure (CHF) has a high percentage among population, and the mortality rate of patients with this pathology reaches ~ 20% in ischemic heart disease (IHD). An aggravating factor in this pathology plays a concomitant diabetes mellitus (DM) type 2.

**Goal:** the aim of the study is to evaluate the effectiveness as carvedilol and nebulae on proinflammatory markers in patients with CHF with ischemic heart disease combined with type 2 diabetes.

**Materials:** the study included 106 patients with CHF II – III functional class (FC) as a consequence of CHD, were treated at the cardiology Department of KZOZ "27 city clinical hospital" of CHC (mean age 65,13±8.66 years). The first group included 63 patients with CHF with type 2 diabetes, the second group – 42 patients with CHF in CHD without type 2 diabetes. From the study were excluded patients with acute coronary syndrome, acute myocardial infarction. Of the patients with CHF II FC had 70 patients, FC III – 36 patients. Among patients of the 1st group FC II CHF was diagnosed in 28 patients, III FC – 13. Patients 2 groups with CHF II FC determined in 42 patients, FC III – 23 patients.

The performance factor of fibrosis chemoattractants monocyte protein-1 (MCP-1) were determined by ELISA.

It is known that type 2 diabetes, and related disorders, shows significantly adverse influence on the course of CHF.

**Results:** in CKD patients with coronary artery disease in the presence of type 2 diabetes is defined by high activity factor of fibrosis MCP-1 simultaneously to the growth of FC. The use of beta-blockers in standard therapy in the treatment of patients with CHF and type 2 diabetes notes a decrease in proinflammatory activity as carvedilol and nebulae. However, a significant decrease of MCP-1 runano to the FC celebrates with the involvement carvedilol.