**The studying tenascin c in patients with acute myocardial infarction and diabetes mellitus type 2**

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**The purpose of the study** is to study the content of tenascin C in patients with acute myocardial infarction and type 2 diabetes.

**Materials and methods:** the study examined 110 patients who were hospitalized in Kharkov City Clinical Hospital No. 27 (clinical base of the Department of Internal Medicine No. 2, Clinical Immunology and Allergology of Kharkov National Medical University). All patients were divided into groups: the main group consisted of 70 patients with acute myocardial infarction (AMI) and diabetes mellitus (DM) type 2; Comparative group - 40 patients with AMI without type 2 diabetes. The control group (20 individuals) consisted of practically healthy individuals. Tenascin C content was determined by ELISA using a Human Tenascin-C Large (FNIII-C) reagent kit (Immuno-Biological Laboratories Co. Ltd. (IBL), Takasaki-Shi, Japan).

**The results of the study:** analysis of the study showed that the content of tenascin C for 1-2 days significantly increased in patients with AMI without type 2 diabetes by 34% compared with the control group (p˂0.05). In patients with AMI and type 2 diabetes, tenascinemia did not amount to a confidence level (p = 0.07). A decrease in the level of tenascin C for 10-14 days in patients with AMI and type 2 diabetes was detected by 38% compared with patients with AMI without type 2 diabetes (p˂0.05). The content of tenascin C for 10-14 days in patients with AMI without type 2 diabetes increased by 71% compared with the control group (p˂0.05). As a result of the correlation analysis revealed the presence of a feedback between the level of tenascin C for 1-2 days and glycosylated hemoglobin r = -0.28; p˂0.05 and glucose r = -0.24; p˂0.05. The relationship between tenascin C for 10-14 days and glycosylated hemoglobin r = -0.70, p <0.05 was determined. **Conclusions:** thus, the revealed connection between tenascin C has shown that the presence of type 2 diabetes mellitus can have an effect on the state of the extracellular matrix in patients with acute myocardial infarction.