

EXPERIMENTAL DEVELOPMENT OF MYOCARDIAL INFARCTION, COMPLICATIONS AND INCREASE OF THE CARDIAC TROPONIN I LEVEL IN THE RABBITS BLOOD

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Abstract. The purpose of this study is to induce the experimental myocardial infarction (M/I) in laboratory rabbits to examine most common post-operation complications and to evaluate the cardiac troponine I (TnI) level in the blood of healthy N. Zealand rabbits before M/I operation and 10–12 hours after it. Twenty nine healthy N. Zealand rabbits were used for the experiment. The myocardial infarction was induced closing the frontal left artery branch beside the middle segment. 62% of experimental myocardial infarction (M/I) operations were successful, the other 38% operations had surgical complications such as: acute respiratory distress syndrome, cardiac tamponade, and cardiac insufficiency. The level of the cardiac TnI was determined using the rapid immunofluorescence assay Triage Cardiac, Biosite Diagnostics. During the examination of the rabbit blood, we established that before M/I the TnI concentration in the blood was within the range 0 ng/ml–0.1 ng/ml, however, 12 hours after M/I operation the TnI level increased from 2.1 ng/ml to 13.3 ng/ml. The TnI levels in the blood exceeding 1.0 ng/ml indicate the M/I.

Keywords: myocardial infarction, troponine I, laboratory rabbit.