

Conclusions. Ovarian torsion and its detorsion involve reactive oxygen species production, that determines lipid peroxidation. Controlled detorsion can diminish this process and decrease the level of MDA that is produced.

Key words: ovarian, torsion, malondialdehyde

264. EXPERIMENTAL MYOCARDIAL INFARCTION AND INTERLEUKINE-6 MODIFICATIONS

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Introduction. The inflammatory response, manifested as acute necrosis, is induced by ischemia in infarcted myocardium. Myocardial remodelling is one of the complications, which leads to arrhythmias and heart failure. Interleukine-6 (IL-6) is a cytokine involved in tissue remodelling, as well as in the pro- and anti-inflammatory response pathways. Post infarct it promotes myocyte hypertrophy and myocardial dysfunction. In addition, IL-6 inhibits cardiomyocyte apoptosis.

Aim of the study. To evaluate serum and homogenate IL-6 level in isoproterenol-induced acute myocardial infarction.

Materials and methods. Forty adult male rats (*Rattus albicans*) were divided into five groups: L1 – intact (n=11); L2 – control animals which were administered NaCl 0.9% (n=11); L3 (n=6), L4 (n=6) and L5 (n=6) included the animals with experimental myocardial infarction, reproduced by injecting subcutaneously isoproterenol hydrochloride 100 mg/kg (one dose). Rats were anesthetized, and sacrificed at 6h, 24h and 7 days respectively. For IL-6 assessment, we use standard Rat IL-6 ELISA kit (Beijing 4A Biotech Co. Ltd). The results were analyzed by Kruskal-Wallis nonparametric test using SPSS version 23. Discussion

Results. The investigated groups have not presented any statistically significant difference neither in homogenate IL-6 content ($p = 0.098$), nor in serum IL-6 level ($p = 0,322$). At the same time, higher amounts of both homogenate and serum IL-6 were registered in experimental groups compared to intact and control groups.

Conclusions. Inflammation plays a significant role in the pathogenesis of myocardial ischemic injury. Infarcted myocardium increases the production of IL-6. Increased IL-6 levels for a prolonged time can indicate associated inflammation and elevated risk of second myocardial infarction. Serum IL-6 level following AMI can be used for the inflammatory process monitoring. In order to prove it the research should be enlarged, and statistical correlations will be performed.

Key words: myocardial injury, cytokine, IL-6

LABORATORY OF TISSUE ENGINEERING AND CELL CULTURES

265. THE ETHIOLOGY OF THE AVASCULAR NECROSIS OF THE FEMORAL HEAD

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Introduction. Avascular necrosis (AVN) is the disease characterized by a vascular insult to the blood supply of the femoral head, which can lead to necrosis of the spongiform bone followed by