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**INFLUENCE OF IONIZING IRRADIATION OF LOW POWER ABSORBED  
DOSES  
ON THE ANTIOXIDANT PROTECTION SYSTEM IN RATS**

Intensity of lipid peroxidation and the functional ability of antioxidant system in blood, hepatocytes and small intestine mucosa cells of rats at one-time action of low power X-irradiation (55 mGy/min) in the doses 0,1, 0,5 and 1,0 Gy were investigated. Obtained results testify the disturbances in pro-oxidant and antioxidant homeostasis in rats at the early post-radiation terms (1, 12 and 24 h). Revealed activation of oxidative processes and dysfunction of antioxidant enzymes in blood serum, small intestine mucosa cells and hepatocytes in dependence to the irradiation dose were shown. The reversion of catalase and superoxide dismutase activity to the control values has not been observed on the 7<sup>th</sup> day after irradiation in doses 0,5 and 1,0 Gy.

*Keywords:* X-ray irradiation, low power, antioxidant enzymes, small intestine, hepatocytes.