

PECULIARITIES OF THE RAT BLOOD PEROXIDASE ACTIVITY UNDER THE DIFFERENT CONDITIONS OF IRRADIATION

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The peculiarities of the white rat of non-bred blood peroxidase activity under the different conditions of irradiation have been investigated using the chemiluminescence method. Conditions of exposure : external protracted gamma-irradiation (^{60}Co , total dose 0.73 Gy); internal protracted irradiation (^{137}Cs , total dose 0,22 Gy); external acute irradiation (^{60}Co , with doses 3.5 and 9.0 Gy); exposure to neutrons (6 MeV, with doses 1,5 and 5,0 Gy). Nonlinear dose dependence of the blood chemiluminescence indices has been detected. The most considerable differences in comparison to control data have been observed 1 - 4 days after the beginning of exposure either high or low doses. External and internal irradiation with low doses causes opposite changes in chemiluminescence intensity during the first month of investigation. The direction variety of chemiluminesced blood indices during the early period of irradiation influence is also typical for the neutron irradiation with dose rate 1,5 Gy.