State of the immune system in women the second generation descendants of persons who were in the area of radiation exposure on the trail of a nuclear explosion at the Semipalatinsk test site August 29, 1949

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The article is dedicated to clinical examination of 112 women of childbearing age who are second-generation descendants of persons who were in the area of radiation exposure with the effective dose over 25 cSv. 67 women were also examined, being descendants of workers of chemical production. State of immune system was evaluated by the content of tumor necrosis factor (TNFα), interleukin 1β (IL-1β) and interleukin 6 (IL-6) in blood serum and the subpopulation structure of immunocompetent cells. The second-generation descendants of persons living in the area of radiation exposure shows a modified subpopulation structure of immune cells and significantly increased levels of proinflammatory cytokines TNFα and IL-1β. (Cytokines and Inflammation. 2012. Vol. 11. № 4. P. 62–66.)

Key words: radiation exposure, immune system, cytokines.