

THE *IN VITRO* EFFECT OF ONCOLYTIC REOVIRUS P-92 ON DENDRITIC CELLS MATURATION AND THE GENERATION OF TUMOR-SPECIFIC T-LYMPHOCYTES

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The use of oncolytic viruses (OV) is a promising method of inhibiting tumor growth. OV have both direct antitumor and indirect immunostimulatory effects. It is known that in cancer pathologies, the recognition of a tumor antigen by cells of the immune system is impaired. Stimulation of dendritic cells (DC) under the action of tumor antigens together with viruses may enhance the generation of antigen-specific lymphocytes against tumor cells, which, in turn, can be an effective tool of antitumor cell technologies. The aim of the research was to study the possibility of using reovirus strain P-92 for the generation of tumor-specific T-lymphocytes *in vitro*. Our work has shown that the presence of reovirus P-92 with DC differentiation increases the yield of mature DCs. In addition, sample loading DCs with HeLa antigen after co-culture with lymphocytes and HeLa, showed no active cytolytic action, only a cytotoxic effect was observed, in contrast to the samples with the addition of reovirus P-92. Thus, an antigen, which is a HeLa cell culture incubated with reovirus P-92 under the conditions described above, can be proposed as an effective experimental product for the cellular immunotherapy of tumors.

Keywords: oncolytic viruses, biotherapy, reovirus P-92, dendritic cells, antigen-specific lymphocytes