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MRET ACTIVATED WATER AS DIETARY COUNTERMEASURES TO MITIGATE CANCER RISK
FROM SPACE RADIATION

Abstract

The major goal of space radiation research is to enable the human exploration of space without exceeding limiting risks from space radiation. The objectives of the study was focused to show that MRET activated water can be utilized to reduce the risk of DNA damage that underlies radiation effects in general. The goal of this investigation was to study the effect of MRET water for the prevention and treatment of two kinds of oncology diseases (laboratory models of Ehrlich's ascites tumor and Sarcoma ascites form). The ability of animals for tumor resistance was studied in the experiments conducted at Kiev State University and Institute of Experimental Pathology, Oncology and Radiobiology, Ukraine Academy of Science: a) study of possible anti-tumor effectiveness of "preventive" administration of MRET water; mice received MRET water during 2 weeks before tumor cell transplantation and after transplantation; b) study of possible anti-tumor effectiveness of "therapeutic" administration of MRET water; mice received MRET water after tumor cell transplantation; c) investigation of functional cytotoxic activity of lymphocytes containing natural killer cells (NK-cells) isolated from spleens of mice (without tumors) which received MRET water; lymphocytes were incubated with tumor target cells. The experimental results confirm that consumption of all types of MRET water leads to the significant inhibition of tumor growth and suppression of mutated tumor cells. The best results were observed in the groups of mice on MRET water activated for 30 minutes (optimal regime). The resulting decrease of the Total Number of Viable Tumor Cells was 76%. The significant positive effect of MRET activated water on tumor resistance in animals was observed in all groups of mice on different fractions of activated water. The application of activated water can be a promising approach for non-drug stimulation of NK-cells immunization vaccines.