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Author: Mr. Sergey Ponomaryov
Institute of Biomedical Problems (IBMP), Russian Academy of Sciences (RAS), Russian Federation,
dr.grey@bk.ru

Dr. Boris Morukov
Institute for Biomedical Problems, Russian Federation, o_chernova@mail.ru

Ms. Tatiana Berendeeva
Russian Federation, tberendeeva@mail.ru

Mrs. Evgenya Antropova
State Scientific Center of Russian Federation, Institute of Biomedical Problems, Russian Academy of
Sciences, Russian Federation, info@imbp.ru

Mrs. Marina Rycova
State Scientific Center of Russian Federation, Institute of Biomedical Problems, Russian Academy of
Sciences, Russian Federation, info@imbp.ru

CHANGES IN NATURAL RESISTANCE OF IMMUNE SYSTEM AT VOLONTEERS-VERIFIERS IN
LONG-TERM ISOLATION.**Abstract**

It's known that the immune system is exposed to adverse influence during the space flight. For the purpose of finding-out the character of similar changes at six volunteers-verifiers at the age from 25 till 40 years in experiment with long-term (105 twenty-four hours) isolation using the flow cytometry research was spent an estimation of some key parameters characterizing a condition of natural resistance system, such as phagocytic activity, expression of pattern recognition receptors (TLR 1, TLR 2, TLR 3, TLR 4, TLR 6), adhesion molecules (CD54, CD24, CD11b, CD18), a Fc-receptor (CD 16), a scavenger-receptor (CD36), a mannose receptor (CD206). A significant increase of phagocytic activity for monocyte and granulocyte populations in comparison with the background values remaining and after exit from isolation chamber was observed. Strengthening of CD11/CD18 receptor expression which is a marker of early activation of phagocytes was as well observed. Decrease of CD 206 monocyte receptor also confirms a high level of phagocyte activity. Dynamics of TLR1, TLR2, TLR3, TLR4, TLR6 CD54, CD24, CD 16 expression on monocytes and granulocytes surface considerably changed throughout the experiment and indicates the strongly pronounced individual wavy character. Such a dynamics of changes can reflect a number of the adaptive changes directed on maintenance regular functioning of immunity, however the further stay in isolation chamber is capable to lead to hyperactivation, and then to an exhaustion of immune system reserve possibilities which lead to increase the infection and autoimmune diseases.