Features of physical rehabilitation of pregnant women after a new coronavirus infection Covid-19

UDC 616.98:578.834.1:615.825-055.26



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Received by the editorial office on 11.26.2023

Abstract

Objective of the study was to develop and experimentally evaluate the effectiveness of a method of physical rehabilitation of pregnant women who have suffered from Covid-19.

Methods and structure of the study. A method of physical rehabilitation of pregnant women who have suffered from Covid-19 has been developed and experimentally tested, including a wide range of specially selected means and musical accompaniment.

Results and conclusions. An analysis of the literature and regulatory sources showed that pregnant women who have had Covid-19 require special attention and rehabilitation. Rehabilitation should be individual, including physical education, massage, psychoprophylaxis and hardening. The experimental technique showed an improvement in the vital capacity of the lungs, muscle condition and joint mobility, and stabilization of the emotional state of the rehabilitators. The PR process for pregnant women who have had Covid-19 should be individual and include a wide range of non-drug methods (physical exercise, massage, psychoprophylaxis, hardening).

Keywords: coronavirus infection Covid-19, pregnant woman, physical rehabilitation (PR).

Introduction. Currently, there is a lack of standards for the rehabilitation of pregnant women after Covid-19, which causes increased risks and complications for the expectant mother and fetus. It is known that infection has a negative effect on the respiratory, cardiovascular, nervous and endocrine systems, as well as on the mental state [1]. Therefore, there is a need to search for means and methods of physical rehabilitation for pregnant women, which are aimed at improving the functioning of the respiratory system, strengthening all muscle groups of the body, preparing the body for childbirth and preventing residual effects after an illness.

Objective of the study was to develop and experimentally evaluate the effectiveness of a method of physical rehabilitation of pregnant women who have suffered from Covid-19.

Methods and structure of the study. The basis of the methodology included general strengthen-

ing dynamic exercises for the arms, legs, torso, to strengthen the abdominal muscles, long back muscles and the muscular-ligamentous apparatus of the lower extremities, movements that improve metabolism, mandatory relaxation exercises, and joint gymnastics. In preparation for childbirth, much attention was paid to the establishment and development of full deep breathing, the ability to relax individual muscle groups, which is important during labor. The classes were accompanied by musical compositions to normalize the psycho-emotional state of pregnant women.

To assess the effectiveness of the PR technique, the following were used: questionnaires, interviews, specially selected functional tests (Robinson Index; spirometry; blood pressure measurement; Medical Research Council (MRC) scale; hip joint mobility) and psychological testing methods.

An experimental test was carried out on the basis of the Women's Consultation Center of the City Clin-

ical Hospital No. 7 of Kazan with the participation of 11 women with a pregnancy period of 22 to 36 weeks who had Covid-19 from 2 weeks to 6 months ago.

Results of the study and discussion. The use of the experimental technique led to a significant improvement: vital capacity of the lungs by 4.8%, the indicator of the condition of the muscles of the lower extremities (MRC scale) by 6.6%, the indicator of mobility of the hip joints by 4.1%, stabilization of the psycho-emotional state of the rehabilitators. **Conclusions.** The process of physical rehabilitation of pregnant women who have suffered Covid-19 should be individual and include a wide range of nondrug methods (physical exercise, massage, psychoprophylaxis, hardening).

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