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THE APPLICATION OF GALOTHERAPY IN COMPLEX REHABILITATION OF PATIENTS WITH CORONAVIRUS INFECTION

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Abstract
The article reflects the results of the research conducted on the inclusion of the halotherapy method in the complex rehabilitation program of 58 patients of different ages and genders who were infected with the coronavirus infection, as well as the evaluation of its efficacy. We selected 58 patients with coronavirus infection and randomly divided them into two groups. Main group (n=38) and control group (n=20). Patients in the main group underwent complex rehabilitation and halotherapy, and patients in the control group underwent complex rehabilitation without halotherapy.

Keywords: coronavirus infection, complex rehabilitation, halotherapy method, cardio-respiratory system, Stange's test, Genchi's test, Borge's scale.

Halotherapy is treatment in artificially restored microclimate of natural salt caves. Salts containing sodium ions and chlorides have a beneficial effect on the human body. Halochambers maintain a constant air temperature without pressure drop and decrease the humidity level in the complete absence of microorganisms. This type of microclimate is hypoallergenic and allows effective cleaning of the respiratory tract without the use of drugs. Salt rooms are equipped with comfortable chairs and, as a rule, provide not only a therapeutic effect, but also high-quality psycho-emotional support. Advantages of Halotherapy: Natural cleaning of respiratory tracts from pathogens and dust, Restoration of lung function, Blood saturation with oxygen, Strengthening of immunity.Renewal and improvement of skin condition due to intense saturation of cells with oxygen. Halotherapy is considered effective as a method of treatment or prevention of the following diseases: Pharyngitis, Sinusitis, Bronchitis of varying severity, Frequent colds, Allergy, Rheumatism, Asthma, Rash, dermatitis and other skin diseases, Ischemia, angina pectoris, the recovery period after a stroke [1,6-16; 2,22-33; 3,37-51;4, 1–14].

The purpose of the study: the use of halotherapy in the complex rehabilitation of patients with Covid-19 and its effectiveness.Research materials and methods: We selected 58 patients with coronavirus infection and randomly divided them into two groups. Main group (n=38) and control group (n=20). Patients in the main group underwent complex rehabilitation and halotherapy, patients in the control group underwent complex rehabilitation without halotherapy. In order to determine the effectiveness of the procedures, the following methods of inspection were carried out.General clinical examination (complaints, objective vision, spirometry, UQT)

Estimation of SpO2 in blood at rest and after exercise;Carrying out and evaluating the Borge scale and the 6-minute walk test in the assessment of treatment effectiveness;Carrying out and evaluating functional tests of the respiratory system (Shtange, Genchi tests);Results and their analysis: When the general blood analysis was analyzed, the predominance of inflammatory symptoms was observed in our patients. As shown in Table 3.1, lymphopenia was observed in 67% of patients, and its return to normal was observed during the treatment period. We found thrombocytopenia in 17%, leukopenia in 24%, SRO increase in 63%. Among our patients, when we compared the results of the liver at arrival and the results of the liver during treatment, we also observed an increase in these indicators. The toxic effect of drugs can also be on the changes in the organs. As the main complaint of our patients is shortness of breath and decreased resistance to physical exertion, we used breathing exercises for them, and recommended halotherapy as an addition for our main group of patients. Rehabilitation of patients was carried out for 3 months.In order to determine the changes in them, i.e. effectiveness, we conducted breath tests, spirometry, OTS and Borge, 6 min. walking test. We compared the results of both groups of patients.When examining the HTS, we saw that the main group increased from 2100.78±24.93 ml to 3400.6±30.57 ml, and in the control group it increased from 2022.36±53.79 to 2580.4±23.9 ml. Creative indicators were more observed in patients who received halotherapy practice.

When determining the oxygen saturation in the blood, we observed that before treatment, the indicators decreased from the norm, and after the treatment, the indicators returned to the norm. We saw an increase from 93.5±15.8% to 97.2±7.18% in the main group, and from 92.4±16.3% to 95.2±0.18% in the control group. Good results were more observed in patients who received halotherapy.Among our patients, it was noted that there is shortness of breath during physical activity and rapid fatigue during daily activities. Carrying out DJT exercises in a complex with breathing exercises increased resistance to physical exertion. To determine this, we used Borga and the 6-minute walk test.

We obtained the following results. We saw that the main group increased from 6.32±0.17 points to 2.4±0.024 points on the Borge scale, and from 7.54±1.14 points to 4.43±0.24 points in the control group. This showed a decrease in panting during exercise. We witnessed that these results were reduced by two times when conducted with halotherapy.6 min. we took the walking test from the treatment and then we saw that the main group increased from 280±26.8 m to 497.87±22.43 m, and the control group increased from 310±28.58 m to 408±32.43 m. We observed that the rehabilitation measures carried out with salt caves increased the effectiveness of the treatment.Thus, it is recommended to carry out systemic, comprehensive rehabilitation for at least 3 months in patients with respiratory failure and shortness of breath during physical exertion. Complete, high-quality rehabilitation helps patients improve their quality of life. Taking halotherapy as part of the complex, that is, every day or 3 times a week, increases the effectiveness of the treatment by 2 times. helps to increase the quality. Taking halotherapy as part of the complex, that is, every day or 3 times a week, increases the effectiveness of the treatment by 2 times.

CONCLUSIONS

1.In patients infected with corona virus,it was found that shortness of breath and resistance to physical exertion decreased, saturation < 95% of main group patients (n=25), saturation < 93% of patients (n=13); patients in the control group (n=14), saturation < 95%, patients (n=6), saturation < 93%.

2.In patients with shortness of breathand reduced resistance to physical load, conducting therapeutic physical exercises against the background of drug rehabilitation led to the solution of the problem and the increase of indicators.

3.In patients with shortness of breathand reduced resistance to physical load, we observed 3 times the effect of therapeutic physical exercises and additional halotherapy practice in the background of drug rehabilitation compared to control group patients.

4.If patients who have passed thecorona virus have respiratory system problems or reduced resistance to physical exertion, then it is necessary to recommend medication, therapeutic breathing, physical exercises and, of course, halotherapy for the rehabilitation of this group of patients.

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