Necessity of structured exercise training program and its feasibility on physical capacity and health status with post COVID-19 syndrome patients

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Method Article

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Abstract

Corona virus disease 2019 (COVID-19) is widespread and has become a global public health emergency. The disease's outbreak was recently announced by the World Health Organization. Pulmonary Rehabilitation has been shown to improve patients' quality of life, function, and well-being with Chronic Respiratory Diseases. Recently, there have been various guidelines and consensus available for Pulmonary Rehabilitation in Post-COVID patients who have been discharged from other respiratory conditions. There is a limited number of literatures on the effect of exercise program on physical fitness and health status of patients with Post COVID-19 syndrome. The current study therefore uses the available evidence in COVID-19 patients to modify an exercise program and apply it to patients with COVID syndrome. The Central Trial Registry of India (CTRI) registration number for this trial is REF/2021/06/044205.

Introduction

Coronavirus Disease 2019 (COVID-19) is widespread and has risen to the level of a global public health emergency. The World Health Organization recently announced the disease's outbreak.

The so-called "Post-COVID Syndrome" refers to symptoms that persist after treatment and may be related to residual inflammation (seizures), physical injuries, side effects from the hospital or chronic shortness of breath (post-intensive care syndrome), isolation or impact on health conditions already existing.

The definition of pulmonary rehabilitation, as derived from the American Thoracic Society/European Respiratory Society, is a comprehensive intervention based on comprehensive patient evaluation followed by patient-centered therapies that include, but are not limited to, training, education, and behavioral changes designed to improve respiratory status.

The goal of rehabilitation in COVID-19 patients is to alleviate dyspnea symptoms, eliminate anxiety, lose weight, reduce disability, maintain function, and improve health. Each patient should have a plan for lung rehabilitation.

When possible and safe, pulmonary rehabilitation should be considered during dynamic administration of COVID-19, and may include nutrition, ventilation, standing, clearing process, oxygen supplementation, breathing exercises, stretching, and strengthening exercises. Given the possibility of long-term disability, lung rehabilitation following hospitalization is recommended.

An important part of rehabilitation is restoring strength and independence in exercise training. Cardio breathing exercises are related to making a large, strong, balanced muscle group go to great exercise for a long time.

The goal of this study is to look into the effect of a 6-week Physical Rehabilitation programme on Post COVID syndrome patients' physical fitness (cardiovascular fitness) and health-related quality of life.
Reagents

Equipment
dumbells, sphygnomanometer, pulse oximeter, therabands, weight cuffs, treadmills

Procedure

Initial contact with patients will be made by telephone interview or by direct appointment from Respiratory OPD. Patients will be evaluated according to the inclusion and exclusion criteria. Inform consent. Patients will be taught to wear comfortable clothes, walking shoes, and masks. There is a 2-team supervised group and an unsupervised group. In the supervised group is defined the certified Pulmonary Rehabilitation Protocol.

**GROUP A:** Supervised group consists of Aerobic training exercises, resistance exercises, balance training exercises, and Respiratory training exercises. The Exercise Training program is prescribed on the basis of FITT (Frequency, Intensity, Type, Time) principle. The exercise training program will be started from day 2 data will be calculated, statistical analysis will be calculated. The treatment period of Supervised Group will be of six weeks.

**GROUP B:** In Unsupervised groups same as group A Exercise Training Protocol will be given, detailed explanation of all exercises and techniques will be taught and performed by the participants on day 1, remaining sessions will be asked to perform at home, handouts will be given to patients can contact through video calls and telephone i.e Tele-rehabilitation in between the treatment period. Treatment will be carried out for 6 weeks in each group. Tailored exercise prescription will be given. Termination indicators to training program will be-Temperature>38.2 degrees, Chest pain, chest tightness, Aggravated cough, Dizziness

Troubleshooting

**Time Taken**

1 year

**Anticipated Results**

Effect of Exercise Training Program on Post COVID Patients
References

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