

Post-Covid-19 Pulmonary Hypertension: how it may physiologically affect exercise training

ABSTRACT

Exercise training is paramount in improving aerobic capacity, lung function, reducing the symptoms of dyspnea, and reconditioning the lean skeletal muscles. Many literature and guidelines have advocated the importance of exercise intervention in addressing the secondary impairment to post covid-19 infection, including home-based therapy and telerehabilitation. Pulmonary hypertension (PH) was previously thought to be contraindicated by exercise training; however, exercise was later found to be beneficial and relatively safe in chronic PH. However, there is a lack of high-quality evidence on the safety and effectiveness of exercise training in post-Covid-19 infected individuals with PH. Pulmonary hypertension has been documented to be one of the post-Covid-19 complications. PH occurred due to Covid-19 infection should be carefully considered before subjecting them to exercise training, especially in home-based therapy. This article aims to discuss the differing etiological factor, pathophysiological backgrounds, and the possible disease long-term outcomes that may compromise the safety of exercise training in post-Covid-19 patients complicated with PH. By understanding the risk of developing PH, risk assessment and stratification can be explicitly outlined for a safe exercise prescription through proper patient selections. Any possible complications can be anticipated; hence, proper preventive strategies can be instituted.