Journal of Clinical Respiratory: Open Access

Pulmonary Hypertension in Categorised Individuals and their Outcomes

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Short Communication

Received: 30-Nov-2022, Manuscript No. JCROA-22-78995; **Editor assigned:** 02-Dec-2022, Pre QC No. JCROA-22-78995 (PQ); **Reviewed:** 16-Dec-2022, QC No. JCROA-22-78995; **Revised:** 23-Dec-2022, Manuscript No. JCROA-22-78995 (R); **Published:** 30-Dec-2022, DOI: 10.4172/jclinresp.4.S3.001

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ABOUT THE STUDY

Pulmonary hypertension (PH) increases vascular loading on the right ventricle, which can cause electrical, mechanical and structural changes to the heart and lungs. This allows for ventricular interdependence, resulting in the unloading of the left ventricle. It is an uncommon disorder of unknown medical causes, characterized by an increase in pulmonary artery pressure and vascular resistance, often leading to failure of the right ventricle of the heart.

The definition for PH was developed in the 1998 World Health Organization meeting. PH is most commonly associated with respiratory system disorders and is classified as a pulmonary artery mean pressure, at rest, of 20 mmHg or greater and is commonly due to an increase in pulmonary vascular resistance.

Physical capacity and quality of life are often restricted for patients with pulmonary PH. Specific medical treatment options partnered with an exercise respiratory training program result in an increased exercise capacity and overall quality of life for these individuals. 30 Patients with severe chronic PH participated. Participants were required to be stable and compensated under optimized medical therapy (such as endothelin antagonists, iloprost, sildenafil, calcium channel blockers, anticoagulants, diuretics, and supplemental oxygen) for at least 3 months before entering the study. Participants were required to be aged between 18 and 75 years (participants ranged from 19-72). Most fit under World Health Organization (WHO) functional class II to IV. Participants could have no recent

syncope, and no skeletal or muscle abnormalities prohibiting participation in an exercise program. Patients in each group resided in the hospital for the initial 3 weeks of the study period and continued with a program at home for another 12 weeks. Medication remained the same. Patients were evaluated at baseline, week 3, and week 15. Primary end points were the changes from baseline to week 15 in the distance walked in 6 minutes and in scores of the Short Form Health Survey quality-of-life questionnaire. Changes in WHO functional class, Borg scale, and parameters of echocardiography and gas exchange also were assessed. The control group followed a common rehabilitation program based on a healthy diet and physical therapy such as massage and muscular relaxation without the use of exercise. The exercise group performed a low intensity (10 to 60 W) interval bicycle ergometer session 7 days a week. 60 minutes of walking was performed 5 days a week and 30 minutes of dumbbell training was performed with light weights (500-1000g) 5 days a week. At week 15, patients in the primary and secondary training groups had an improved 6-minute walking distance; the mean difference between the control and the primary training group was 111 m (95% confidence interval, 65 to 139 m; P<0.001). Exercise training was well tolerated and improved scores of quality of life, WHO functional class, peak oxygen consumption, oxygen consumption at the anaerobic threshold, and achieved workload. Systolic pulmonary artery pressure values at rest did not change significantly after 15 weeks of exercise and respiratory training (from 61 ± 18 to 54 ± 18 mm Hg) within the training group. This suggests exercise is not a cure for PH, rather it adds additional benefits to medication. It is commonly believed that physical activity or training may have a negative effect for patients with Advanced. Due to this fact often times doctors tend to shy away from or even advise against exercise for those with advanced PH due to the high risk. Little is known about the affect of life style changes such as exercise on patients with advanced PH. This is the first prospective, controlled, randomized study investigating an exercise program and shows low intensity exercise as a promising, powerful and safe adjunct therapy for patients with PH.

REFERENCES

1. Latkin CA, et al. Trust in a COVID-19 vaccine in the U.S.: A social-ecological perspective. Social science & medicine (1982). 2021;270:113684.
2. Khurshid. Applying blockchain technology to address the crisis of trust during the covid-19 pandemic. JMIR medical informatics. 2020;8:e20477.
3. Lebanese Ministry of Public Health. Monitoring of COVID-19 infection in Lebanon. 2022
4. Joshi A, et al. Predictors of COVID-19 Vaccine Acceptance, Intention, and Hesitancy: A Scoping Review. Review. Front Public Health. 2021;9.
5. Order of Nurses in Lebanon. Statistics issued by the Order. 2021.