

Effects of Pulmonary Rehabilitation Program in Patients of Thoracic Surgery in a University Reference Hospital in Latin America

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Introduction

In patients undergoing thoracic surgery, changes in aerobic capacity affects the functionality and independence in basic and advanced instrumental activities contributing to the deterioration in life quality. Pulmonary rehabilitation programs improves physical capacity, which is reflected in test assessments and measures. This study shows the results of a pulmonary rehabilitation program in patients of thoracic surgery at a referral hospital in Latin America

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Methods

We identified 24 patients who underwent CT, divided into 3 groups: the first with patients without chronic disease or malignancy, the second with patients with malignant disease, and the third with chronic disease patients. The PR program consisted of 24 sessions, 3 times per week for 2 months. The patients were measured at the beginning and at the end of the 6-minute walk, with the CRQ (Chronic Respiratory Questionnaire) to assess life quality related to health and with HADS (Hospital Anxiety and Depression Scale) to assess anxiety and depression. $p < 0.05$ was considered statistically significant.



Results

This study is retrospective, analytical and observational, including qualitative and quantitative analysis. All 24 patients completed the PRP. The average age was $56.3 \pm SD 20.8$ years for females and $60.2 \pm 14.5 SD$ years for males. 52% were women. Before and after the PRP, there were significant differences for the distance achieved in the 6-minute walk (344.5 ± 89.8 versus 423.4 ± 106.4 $p < 0.05$). Life quality in health showed significant differences when comparing the before and after ($4.61 (4-5.95)$ versus $5.3584.75 - 6.2$ $p < 0.05$); there were no differences in test anxiety and depression. As for group classification, patients with chronic diseases including COPD, had a 100% improvement in the walking test and life quality in health, followed by the group of patients with malignant pathologies.

Discussion

The significant differences found in the 6-minute walking test and CRQ score can be attributed to the fact that patients undergoing thoracic surgery with malignant diseases and chronic diseases including COPD, respond satisfactorily to the exercise requirements of PRP evidenced by improved SO_2 , FC, perception of fatigue and dyspnea. The minor differences in test anxiety and depression may be related to underlying diagnosis such as malignant, chronic and debilitating diseases. We should probably perform a study that evaluates the differences in test anxiety and depression with longer post-surgical evolution.