

PULMONARY REHABILITATION IN PATIENTS REFERRED FOR LUNG TRANSPLANTATION

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Effectiveness of pulmonary rehabilitation (PR) In patients with chronic obstructive lung diseases, cystic fibrosis and interstitial lung disease have been well documented but little is known about results of PR in patients referred for lung transplantation (LT). The purpose of this study is to prospective examine efficiency of Nordic Walking, a low cost, accessible and proven beneficial form of physical exercise as form of PR in patients referred for LT. Material and methods. Twenty-two patients, only men, referred for LT at the Department of Lung Diseases and Tuberculosis in Zabrze, Poland were invited to take part In the study. The rehabilitation program, which conducted for 18 weeks, was based on Nordic Walking exercise training with ski poles. Lung function tests (FVC, FEV1), mobility (6 minute walking test /6 MWT/), rating of dyspnoea (Borg's scale, MRC and Baseline Dyspnea Index) and quality of life (SF-36 and SGRQ) were performed before and after completing the exercise program. Results: No adverse events were observed after completing the PR program in patients referred for LT. After 18 weeks of PR with Nordic Walking we observed significant increase in mean distance walked in the 6 MWT (310.2 m vs. 372.1 m, $p < 0.05$). Also results of lung function test showed improvement (FVC, FEV1) but without statistical significances. No statistical significant differences were observed in perception of dyspnoea (MREC, OCD, Borg's scale) before and after completing the study. SGRQ showed significant improvement (> 4 pts.) with activity score. General health quality of life questionnaire (SF-36) showed improvement in domains: Physical Functioning, Role-Physical, Bodily pain, General Health and Social Functioning but only in Role-Physical domain the improvement was statistically significant ($p < 0.05$). Conclusion: Pulmonary rehabilitation with Nordic Walking programme is safe, cost effective and feasible in end stage lung disease patients referred for LT resulting in improvement in mobility and quality of life.