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# The Effect of Home Based Pulmonary Rehabilitation on Quality of Life in Patients with Bronchiectasis and Related Factors

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**Objectives:** We aimed to investigate the effects of home-based pulmonary rehabilitation (PR) on the quality of life and related factors in patients with bronchiectasis.

**Methods:** The patients were included prospectively in the study and followed a home-based PR program for 2-months comprising breathing exercises, training in chest hygiene techniques, peripheral muscle strengthening training and self-walking. The outcomes measurements were six-minute walking distance (6MWD), pulmonary function test ($FEV_1$%, FVC%) peripheral and respiratory muscle strength (MIP, MEP) measurements, modified Medical Research Council (mMRC) dyspnea scores and Saint George Respiratory Questionnaire (SGRQ).

**Results:** A total of 19 patients, 37% of whom were men and mean age 48.36 years, were included in the study. A comparison of the outcome measures recorded before and after PR, although there was a decreased in the SGRQ symptom score and an increase in the activity, impact, and total score, but these changes did not reflect the statistical level. Similarly, there were positive improvements in 6MWD, MIP, MEP, mMRC and peripheral muscle strength which were not reflected in the statistical level. Correlation analysis between SGRQ subscales and the amount of change after PR in the patients clinical features was found to be moderately correlated with SGRQ symptom score and 6MWD(r=.580, p=.023).

**Conclusion:** Pulmonary rehabilitation ensures positive improvements in the quality of life and general clinical status except lung functions of such patients. The lack of reflection of the obtained rehabilitation gains on the statistical level may be caused by progressive lung pathology.

**Keywords:** Dyspnea, exercise, lung function, muscle strength, quality of life