Abstract

Introduction: Chronic obstructive pulmonary disease (COPD) is one of the most common chronic respiratory diseases. Impairments in exercise capacity, kinesiology and skeletal muscle function are well established in these patients. Recently presented data also suggests impairments in postural balance and increased risk of falls in patients with COPD. The aim of this study is to examine postural balance functions in a group of patients and compare the results with a control group.

Methods: Twelve patients (the average age 65,6 ± 7,1, 5 women, 7 men) with COPD hospitalized at the Pulmonary Clinic at the Faculty Hospital, Prague Motol and 10 healthy control subjects (the average age 58,6 ± 5,2, 7 women, 3 men) participated in this study. Participants were measured by The Activities-specific Balance Confidence Scale (ABC) and The Balance Evaluation Systems Test (BESTest).

Results: COPD patients scored significantly worse (0,0099, $p < 0,05$) on the ABC scale total score compared to healthy controls, 78,38 ± 21,14 for COPD versus 97,78 ± 3,88 for controls. The total score and the six subsystem categories score of the BESTest were lower in COPD patients, but not significantly, compared to controls.

Conclusion: Patients with COPD showed a lower degree of balance confidence and postural balance functions. These findings are important for clinical practice rehabilitation of COPD and should not be overlooked or forgotten.

Keywords: COPD, postural balance, falls, skeletal muscle dysfunction