

2,719 were non-sarcopenic. The survival rate of patients with lung cancer and sarcopenia was lower than that of patients with lung cancer and non-sarcopenia after 5 years of follow-up (19.4% vs 28.9%, $p < 0.001$). Functional performance, assessed by the distance covered in the six-minute walk test, was lower in the sarcopenic group compared to the non-sarcopenic group (516 ± 75 m vs 526 ± 74 m, $p < 0.001$). There was no difference in length of stay (11 vs 11 days, $p = 1.000$).

Conclusion: Sarcopenia reduces survival in patients with lung cancer and results in lower functional capacity, with no influence on the length of hospital stay.

Implications: We emphasize the importance of synthesizing information about the effect of sarcopenia associated with lung cancer to contribute to the clinical decision-making of professionals who work in this health condition and population, helping professionals to base their interventions on evidence.

Keywords: Sarcopenia, Lung cancer, Survival

Conflict of interest: The authors declare no conflict of interest.

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CARDIAC TELEREHABILITATION ON FUNCTIONAL AEROBIC CAPACITY AND CLINICAL VARIABLES IN PEOPLE WITH HEART FAILURE

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Background: Heart failure causes the highest rate of mortality and disability among people with some type of cardiovascular disease. As a non-pharmacological intervention, people are referred to cardiac rehabilitation programs in order to improve clinical outcomes; telerehabilitation is an alternative for those people with less adherence and limited travel to health centers.

Objectives: The objective of this study was to determine the effect of cardiac telerehabilitation on functional aerobic capacity and clinical variables in people with heart failure.

Methods: Randomized controlled clinical trial for 12 weeks in people with heart failure previously diagnosed by a cardiologist, with hemodynamic stability who entered a cardiac rehabilitation program for the first time at a clinic in Cali, Colombia. Institutional ethics endorsement (#17.115) was obtained, and all subjects signed informed consent. Through random sampling, people were divided into two groups: conventional cardiac rehabilitation (CR) and cardiac telerehabilitation (CTR) who received virtual technology assistance through "Google Meet". The primary variable was the distance covered in the 6-minute walk test and the secondary variables: some clinical variables (risk factors, symptoms, left ventricular ejection fraction (LVEF), weight, BMI, abdominal circumference, Sit to Stand, Total Cholesterol, HDL, LDL and Triglycerides). Subjects performed 20 minutes of upper and lower limb muscle strengthening, continuous aerobic exercise with 50-70% of HRmax reserve or perceived exertion less than 13/20 on the Borg scale. The t test for

intragroup paired samples and the t test for intergroup independent samples were performed at the beginning and end of the intervention. There was significance of 95%.

Results: 31 people with heart failure were included, 14 in the CR group and 17 in the CTR group, 71.4% and 64.7% of them men, respectively p -value=0.690. The mean age for CR was 60.86 ± 11.12 and CTR 60.18 ± 11.54 p -value=0.870. The most frequent symptom for CR was lower limb fatigue (71.4%) and for CTR dyspnea (70.6%) p -value=>0.05. The most frequent risk factor for the CR group was sedentary lifestyle (92.9%), for the CTR group it was arterial hypertension (88.2%) p -value=>0.05. There were significant changes at the beginning and end of the study in the variables covered distance CR pre- 251.53 ± 38.49 , CR post 360.59 ± 58.47 , CTR pre- 245.68 ± 60.16 , CTR post 342.85 ± 72.70 and Vo2e CR pre 7.71 ± 1.18 , CR post 10.09 ± 1.63 , pre CTR 7.54 ± 1.8 , post CTR 9.61 ± 2.03 showing p -value<0.05. Variables such as sit-to-stand repetitions, waist circumference, HDL showed significant changes for both groups p -value<0.05. LVEF showed significant changes only in the CR group.

Conclusion: Cardiac rehabilitation and telerehabilitation in people with heart failure cause significant changes in functional aerobic capacity, waist circumference, and HDL; Additionally, conventional cardiac rehabilitation presented significant improvements in LVEF.

Implications: Cardiac telerehabilitation causes changes similar to conventional rehabilitation in people with heart failure and can be used as a tool that allows a higher percentage of participation and adherence in people with difficult access to rehabilitation centers.

Keywords: Heart Failure, Telerehabilitation, Cardiac Rehabilitation

Conflict of interest: The authors declare no conflict of interest.

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THE EFFECT OF DIFFERENT TYPES OF BIOFEEDBACK ON THE LEVEL OF MUSCLE ACTIVITY DURING STANDING BALANCE

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Background: Biofeedback allows the individual to gain awareness and directly control a biomechanical or biological variable of interest. The biofeedback of postural performance has aroused a great interest of Rehabilitation Sciences due to its potential impact on the control of postural stability. While it is well established that biofeedback seems to limit body movements in orthostatism, it is not clear whether such a postural strategy occurs at the cost of increasing the level of muscle activity and whether it differs between different biofeedback techniques applied to postural control.

Objectives: This study is aimed at investigating the effect of different types of biofeedback techniques on the level of muscle activity postural sway during standing.

Methods: Three adults were tested in three standing conditions: (1) eyes open (EO); (2) biofeedback of acceleration (BFac), consisting of reducing the linear acceleration of the trunk in the anteroposterior (AP) direction; (3) biofeedback of laser (BFlaser), consisting of pointing a laser as close as possible to a target from the right wrist. The acceleration components were collected through a triaxial