

EFFECTS OF AN AEROBIC TRAINING IN PATIENTS ON HEMODIALYSIS PROGRAM

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Abstract

Introduction and Aims: The Chronic Kidney Disease and the hemodialysis treatment has significant potential in changing negatively the lifestyle of these patients, leading them to a reliance on health care and rehabilitation and, eventually, loss of social roles. Because of the changes mentioned, it's essential the implementation of strategies and programs for exercise training, designed to minimize many of the complications of this syndrome and consequently contribute to an improved quality of life. This research aims to evaluate the effects of aerobic training in hemodialysis patients with chronic renal disease.

Methods: The study population was composed of 100 patients with Chronic Kidney Disease on regular hemodialysis program in the NorDial hemodialysis Unit, being offered to everyone the same opportunity to participate in the program training. Among those who expressed interest and willingness to participate, after application of the exclusion criteria and taking into account the patients choices, the result was a sample of 43 patients to integrate the Group Training (GT) and 16 patients to establish the Control Group (GC). The aerobic exercise program was implemented in early May of 2012 for 8 consecutive weeks, with a frequency of 3 sessions per week during the dialysis treatment. Before and after the intervention were executed the respective functional and physical assessments and the SF36-v2 questionnaire.

Results: The training group is characterized by a mean age of 71.93 ± 11.76 years and in hemodialysis 4.29 ± 3.22 years, after the intervention had significant changes in hemoglobin levels of 11.02 ± 0.88 g/dL to 11.3 ± 0.698 g/dL and hematocrit of $32.55 \pm 2.62\%$ to $33.59 \pm 1.9\%$. In the sit to stand test were observed changes in the number of repetitions of 13.24 ± 4.96 to 18.08 ± 6.23 and in the up and go the time to complete the test went from 15.03 ± 10.90 s to 9.67 ± 5.74 s. In the quality of life, the change was from 49.93 ± 9.953 to 53.22 ± 7.545 in the component related to mental health.

Conclusions: The intradialytic aerobic training implemented had a beneficial effect on aerobic capacity/functional of these patients, as well on the perception of their quality of life, specifically in the component related to mental health. Further investigations are needed to determine the effects of this type of training on blood pressure, glucose and EPO dose administered.