

Aerobic Capacity Outcomes after an Aerobic Exercise Program with an Upper Body Ergometer in Diabetic Amputees

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Abstract : Introduction: Amputation comes from a series of complications in diabetic persons; at that point, of the illness evolution they have a deplored aerobic capacity. Adding to that, cardiac rehabs programs are almost base in several activities in a standing position. The cardiac rehabilitation programs have to improve for them, based on scientific advice. Objective: Evaluation of aerobic capacity of diabetic amputee after an aerobic exercise program, with upper limb ergometer. Methodology: The design is longitudinal, prospective, comparative and no randomized. We include all diabetic pelvic limb amputees, who assist to the cardiac rehabilitation. We made 2 groups: an experimental and a control group. The patients did the exercise testing, with the author's design protocol. The experimental group completed 24 exercise sessions (3 sessions/week), with an intensity determined with the training heart rate. At the end of 8 weeks period, the subjects did a second exercise test. Results: Both groups were a homogeneous sample in age (experimental n=15) 57.6+12.5 years old and (control n=8) 52.5+8.0 years old, sex, occupation, education and economic features. (square chi) (p=0.28). The initial aerobic capacity was similar in both groups. And the aerobic capacity accomplishes after the program was statistically greater in the experimental group than in the control one. The final media VO₂peak (mlO₂/kg/min) was experimental (17.1+3.8), control (10.5+3.8), p=0.001. (t student). Conclusions: The aerobic capacity improved after an arm ergometer exercise program and the quality of life improve too, in diabetic amputees. So this program is fundamental in diabetic amputee's rehabilitation management.

Keywords : aerobic fitness, metabolic equivalent (MET), oxygen output, upper limb ergometer

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