

The non-supervised rehabilitation: a home-based rehabilitation

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The non-supervised rehabilitation, a home-based training is a useful tool in the management of heart disease. It is related its use in coronary heart disease and heart failure. In developed countries less than 25% of the eligible patients for cardiovascular rehabilitation participate in rehabilitation training centers. In supervised rehabilitation programs, 25 - 50% of the patients discontinues in six months and more than 90% in one year [1]. In USA only 10 to 20 % of the eligible patients, estimated in two million persons are involved in those trainings.

In a literature review about the Non-Supervised Rehabilitation (NSR) or Home-Based Rehabilitation, we assessed the UR efficacy with elevation of oxygen uptake about 18% (7% to 33%) of VO₂ peak and better adherence than the supervised training [2]. In low risk coronary paired patients, submitted to NSR, a retrospective study described an increase in *e VO₂ peak and *e Pulse O₂ without accidents due to training [3]. Low risk coronary patients were submitted to NSR during a prospective and randomized study. They showed increased values of VO₂ peak, Work peak and Exercise Time in treadmill testing. The control group had decreased values in those variables. The experimental group had improvement in all domains of the SF-36 questioner, while the control group has showed a decreased in the physical domain. The adherence in the experimental group was 100%.and the program cost was US\$502.71 by patient [4].

In low risk patients with chronic heart failure and sleep apnea, the NSR effects were evaluated in a prospective, randomized and longitudinal study. There were three groups: Group 1 (aerobic training), Group 2 (aerobic with strength training), and Group 3 (untrained). Strength and endurance of the knee extensors and flexors were measured. Whereas in Group 3, a small deterioration or no change was found, muscle strength and endurance improved significantly or did not change after NSR in Groups 1 and 2. Therefore home-based training preserved or even improved muscle strength and endurance in

trained patients. The quality of life and of sleep showed improvement in groups 1 and 2, and deterioration in group III [5]. The relationship between NSR and the improvement of oxygen uptake were evaluated in physically active elderly individuals. They were undergone to NSR in a prospective and randomized study. The peak oxygen uptake and anaerobic threshold remained unchanged. However the depressive symptoms and physical pain decreased in the experimental group [6]. We believe the RNS is an advantageous and efficient procedure, with low cost and great utility in health care.

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