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.

References