https://doi.org/10.24207/ABEC.2023.22596

Chronic dilated heart failure: What is the benefit of cardiovascular rehabilitation?

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Introduction: Physical exercise promotes beneficial changes in cardiac geometry, called reverse myocardial remodeling. Recent studies show that physical exercise is capable of reorganizing the cellular signal in cardiac tissue and reversing concentric hypertrophy or ventricular dilation. However, there are few reports about this in patients with Chronic Dilated Heart Failure (CHF). **Objective:** To describe the effect of a Cardiovascular Rehabilitation (CR) program on the functional capacity, quality of life and myocardial geometry of a patient with chronic dilated heart failure. **Case Description:** Woman, 67 years old, with Implantable Cardiodefibrillator, hypertensive for 30 years, dilated heart failure with reduced ejection fraction 20% (Teicholz), left bundle branch block, CHF grade III-IV (NYHA). The supervised CR program lasted twelve months, with three weekly sessions. Initially, only low-load resistive neuromuscular exercises and inspiratory muscle training were performed. Both evolved gradually, respecting the patient's clinical and functional condition. Functional exercises such as sitting and, standing and climbing stairs were later introduced. The treadmill was also introduced into the program in an interval format (three sets of 1-minute active for 2 minutes of passive rest). The work was periodized every 2 months. Drugs were not optimized during this period, and digoxin was withdrawn. **Results:** In the pre and post-CR echocardiogram, the ejection fraction increased from 20% to 40%, the left ventricular mass from 255 g to 128 g, with a decrease in the volumes and diameters of the left ventricular cavities, showing reverse myocardial remodeling. After CR, an exercise test was performed in which the patient reached 84% of the maximum predicted frequency (6.5 METS). The patient resumed life activities that she had not previously performed, such as going shopping at the market. **Conclusion:** In this case, the CR program was important to promote improvement in functional capacity, reverse myocardial remodeling and improvement in the quality of life of a woman with Chronic Dilated Heart Failure.