

Effect of Aerobic Exercises on Patients with early Coronary Artery Disease

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Abstract

The purpose of the study was to examine the effects of aerobic exercises on patients of early coronary artery disease. The study was conducted on thirty male adult patients of stable angina, ranging in age from 40 to 60 years (mean 53.2 years). Six weeks cardiac rehabilitation program (CRP) consisting of light aerobic exercises was administered to the subjects' with intermittent monitoring of their cardiovascular fitness. Intensity of exercise programme (CRP) was increased every two weeks. The results revealed that there was a gradual increase in cardiovascular fitness but the exercise tolerance had decreased during this period.

Key word: Coronary artery disease, Cardiac Rehabilitation, Exercise tolerance, Cardiovascular fitness

Introduction

Cardiac rehabilitation is a medically supervised programme to help heart patients recover quickly and improve their overall physical and mental functioning. *Wenger (1991)* states that coronary patients should not exercise at a level higher than that documented to produce an appropriate cardiovascular response during testing. He states further that aerobic exercises should be preferred, as isometric exercises increases heart rate, cardiac output and systolic blood pressure that can provoke angina.

In cardiac rehabilitation, a wider choice of intensities is left to the patient for aerobic exercise without giving up the potential to reduce cardiac risk factors (*Mertesdorf and Schmitz, 2005*). *Smith et al, (2004)* quoted that low risk patients whose cardiac rehabilitation is initiated in the home environment may be more likely to sustain positive physical & psychological changes overtime than the patient whose programme is initially institution based. The goal of Cardiac rehabilitation is to reduce the risk of another cardiac event or to keep an already present heart condition from

getting worse. Evidences suggest that improving the plasma lipid and lipoprotein profile with diet, exercise and drug therapy benefits patients. An attempt was given in this study to start the cardiac rehabilitation programme to the patients with chief complaint of stable angina from the first day onwards for six weeks.

Materials and Methods

Thirty male patients of coronary artery disease of age between 40-60 years were studied. All the patients were recruited from the Northern India. Those subjects were included in the study who had stable angina and were diagnosed by the physicians of Adesh Hospital Muktsar, Punjab. All the subjects had at least one common associated disease which was diabetes mellitus and were on the medication of beta-blockers which had blunted their heart rates. Only those subjects were taken into account who sincerely continued the CRP for six weeks period.

Following CRP was administered for a period of six weeks to the subjects' and their cardiovascular fitness was evaluated after every two weeks.