

Effect of Cardiac Rehabilitation on Blood Pressure in Stable Angina Patients

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Abstract

The purpose of this study was to investigate the effect on systolic and diastolic blood pressures after six-week cardiac rehabilitation programme in the stable angina patients. A randomly chosen thirty male patients (experimental group) of stable angina age ranged from 40 to 60 years were given a six- weeks cardiac rehabilitation programme and thirty male patients of stable angina (control group) age ranged from 40 to 60 years were not given any cardiac rehabilitation. The systolic and diastolic blood pressure was measured during TMT (before and after) the cardiac rehabilitation. Results showed a statistical significant improvement in the systolic and diastolic blood pressure after cardiac rehabilitation in the experimental group but the control group showed no significant improvement.

Key Words: Stable Angina, Systolic Blood Pressure, Diastolic Blood Pressure, Cardiac Rehabilitation, TMT

Introduction

In more than 90% of patients, stable angina is caused by a greater than 70% obstruction in at least one coronary artery. In less than 10% of individuals, a lesser degree of atheromatous obstruction, coronary artery spasm or small vessel disease is present. During periods of exercise to exertion, catecholamine release causes an increase in heart rate, an increase in the velocity and force of myocardial contraction producing an elevation in Blood Pressure (BP), and an increase in myocardial oxygen demand (Khan, 2006). In the presence of a significant coronary arterial stenosis, an oxygen deficit occurs. Myocardial ischemia increase catecholamine release, resealing in additional increase in heart rate and blood pressure, with further oxygen lack and the vicious cycle ensues. In addition the coronary arteries fill

during the diastolic period, which is shortened during tachycardia. Blood factors, including lipoproteins and platelet functions, and arterial wall functions, with its effect on coagulation, blood pressure and organ perfusion influence the processes of arteriosclerosis, atherosclerosis and thrombosis, which can had to CAD. Coronary artery disease, along with these other processes may result in angina, MI or death.

Materials and Method

A randomly sampled 60 patients of stable angina were evaluated for this study. They were divided into two groups- experimental and control, each was comprised of 30 patients. The experimental group was explained aerobic exercises for thirty minutes once a day for four days a week for six weeks. The intensity suggested for the exercises to