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Effectiveness of An Inpatient Treadmill Exercise Program for CABG Patients

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ABSTRACT

The purpose of this study was to examine how a treadmill exercise program can improve the daily activity accomplishment for patients who have undergone coronary artery bypass surgery and to verify its influence on 6-min walking distance, fatigue, daily activity performance, and self-efficacy. In total, 25 subjects who met the selection criteria were recruited from a teaching hospital by purposive sampling. An inpatient treadmill exercise program was conducted when subjects were transferred from intensive care units to the general wards after surgery. Data were collected on the day of hospital discharge, and then 1 and 4 weeks after hospital discharge using a 6-min walk test, the Fatigue/Stamina Scale, the Self-efficacy of Daily Activity Inventory, and the Daily Activity Scale. The results of this study demonstrate that the average length of time for participation in the rehabilitation program was 5.72 (± 0.98) days. All 25 subjects completed the first 3 stages of the program, but only 16 and 9 subjects completed stages V and VI, respectively. The highest activity intensity (METs) achieved was positively correlated to the number of days hospitalized ($r = 0.403, p < 0.05$). After hospital discharge, the 6-min walking distance, daily activity, self-efficacy, and perceived fatigue improved significantly. Findings of the study suggest that an inpatient treadmill exercise program can be started at an early stage when a patient's condition has stablized after open-heart surgery. (N. Taipei J. Med. 2002;4:89-98)

INTRODUCTION

Cardiac vascular disease is one of the most fatal diseases of human beings. According to statistics provided by the Health Department of the Executive Yuan in Taiwan, heart disease ranked number 4 out of the top ten causes of death in 1999; that is, about 10,000 people out of every 100,000 people died from

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