Steering Resources to Achieve Early Work Resumption for Young Cardiac Patients

Chu WY(1), Yu PK(1), Lee TY(1), Man H(1), Chan NY(2)
(1)Occupational Therapy Department, Princess Margaret Hospital,(2)Department of Medicine & Geriatrics, Princess Margaret Hospital

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Introduction
The important improvements in medical interventions, preventive treatments and cardiac rehabilitation occurred in recent years may have allowed cardiac patients to resume work sooner and in better conditions after acute coronary events. However, the timing to advise return to work has been arbitrary and the factors affecting work resumption are not well understood.

Objectives
An Early Return to Work Program for Young Cardiac Patients was implemented to facilitate early work resumption through systematic procedure to identify potential barriers for stratifying cardiac patients to receive early comprehensive work rehabilitation program.

Methodology
Patients of working age admitted with acute coronary events were recruited. Cardiovascular status was improved by medical treatment and surgical intervention. Medical factors, occupational or psychosocial profiles would be evaluated. Early post-discharge treadmill test and echocardiogram would be arranged to further stratify cardiovascular risks for prompt initiation of comprehensive work rehabilitation program.

Result
34 patients (32 male, 2 female) with mean age of 53.4 (SD=6.0) years old were recruited. Most diagnoses were related to myocardial infarction (MI) (79.4%), other diagnoses included unstable angina (8.8%), post cardiac arrest (5.8%), cardiomyopathy (3%) and aortic aneurysm (3%). Sixteen (47.1%) patients (Group 1)
attended work capacity evaluation (WCE) only, 13 (38.2%) patients (Group 2) were stratified for training after WCE and 5 (14.7%) patients default the program. The characteristics of Group 1 and Group 2 were compared. Significantly more patients in Group 1 were diagnosed with MI as compared to Group 2 (93.7% vs 46.1%; p=.001), of whom 100% and 84.6% had undergone surgical intervention respectively. Group 2 had taken significantly longer time for medical stabilization before hospital discharge (13.1 days vs 7.4 days; p=.03) and at the same time had shown lower cardiovascular fitness as revealed by the parameters in the post-discharge treadmill tests (MET 8.92 vs 7.4; p=.009; THR 85% vs 79%; p=.05) than Group 1. WCE revealed similar portions of heavy physical demands characteristics in both Groups (76.9% vs 62.5%; p=0.21) but significantly more patients in Group 2 were partially or non-matched with previous work demands than Group 1 (91.6% vs 18.8%; p < .001) and were arranged for subsequent work training. The psychosocial domains in SF36 including physical functioning (p=0.047), general health (p=0.047) and mental health (p=0.016) were found be significantly lower in Group 2. High return to work rate (89.7%) was shown by all patients recruited in the program with 65.4% of them could resume previous job directly. However, Group 2 had taken significantly longer time from hospital discharge to resume work than Group 1 (73.7 days vs 17.9 days; p < .001). Early medical intervention and risk reduction procedure had improved the cardiovascular status of young cardiac patients. Early assessment on medical, occupational and psychosocial factors would facilitate identification of patients’™ potential for early work resumption and to promptly stratify them for intensive work rehabilitation when barriers anticipated.