15

IMPORTANCE OF CLINICAL PARAMETERS IN DETERMINING THE PROGNOSIS FOR PATIENTS ENROLLED INTO THE CARDIAC REHABILITATION PROGRAMME

Yu CM, Li LSW, Fong YM, Ho YY, Lam KB, Mok PK, Chau J, Lau CP
Cardiac Rehabilitation and Prevention Centre, Department of Medicine, Tung Wah Hospital and Queen Mary Hospital, Hong Kong

Objective: To investigate whether clinical or laboratory parameter can predict mortality & morbidity in cardiac rehabilitation programme (CRP).

Design and Methods: A prospective follow-up study of 267 patients enrolled into CRP were studied. The hospital admission for cardiovascular complication and mortality were analysed against demographic, clinical and laboratory parameters.

Results: The mean age was 64.4 years (69% male) and the mean duration of follow-up was 3.16 years. The main diseases were acute myocardial infarction (61%) and ischaemic heart disease (34%). Revascularisation were performed in 48% of patients. The cumulative mortality was 14% (38 patients). Patients who died were significantly older (67.9 ± 1.4 Vs 63.8 ± 0.7 years, $p = 0.01$), associated with lower ejection fraction (49.0 ± 2.2 Vs 54.4 ± 1.0%, $p = 0.048$) and lower exercise capacity (2.4 ± 0.2 Vs 5.4 ± 0.2 METS, $p< 0.001$). The presence of diabetes ($p < 0.0001$) and those without revascularisation ($p = 0.0001$) were also associated with increased mortality. For hospitalisation, the positive predictive factors were: elderly age, the presence of diabetes, lower mets achieved at exercise test, the presence of hypertension and non-Q myocardial infarction.

Conclusions: Age, exercise capacity, revascularisation procedures, as well as the presence of diabetes and hypertension are important prognostic predictors in patients enrolled into CRP.

16

INFLUENCE OF CLINICAL PARAMETERS ON SHORT-TERM OUTCOME IN CARDIAC REHABILITATION PATIENTS AFTER ACUTE MYOCARDIAL INFARCTION

CM Yu, J Chau, BMY Cheung, KB Lam, YM Fong, YY Ho, LSW Li, CP Lau. Cardiac Rehabilitation and Prevention Centre, Department of Medicine, Tung Wah Hospital & Queen Mary Hospital, The University of Hong Kong, Hong Kong

Objective: There is evidence that cardiac rehabilitation program (CRP) improves the clinical and quality of life (QOL) measures in patients after acute myocardial infarction (AMI). This study is to find out whether clinical parameters are able to predict this beneficial outcome.

Methods: Seventy-eight AMI patients (57 males, mean age = 65±12 yrs) enrolled into the CRP were studied. The patients' well being (QOL questionnaires) and clinical status (echocardiography and Treadmill test) were assessed at the end of phase 2 (8 weeks of out-patient exercise and education classes). These results were analysed against demographic, clinical and investigational data.

Results: Older age was associated with better general health ($r = .42$, $p = .005$) and mental health ($r = .49$, $p = .001$), less anxious ($r = -.36$, $p = .02$) and hostile ($r = -.33$, $p = .03$), less severe ($r = -.35$, $p = .02$) and frequent ($r = -.38$, $p = .01$) cardiovascular symptoms; but a shorter exercise time ($r = -.68$, $p < .001$) and lower METS ($r = -.58$, $p < .001$) achieved. Male gender appeared less depressed ($p = .04$) with better physical functioning ($p = .01$) and vitality ($p = .02$), as well as longer exercise time ($p = .01$) and METS ($p = .03$) achieved. A higher peak CPK level was associated with a lower fractional shortening ($r = -.40$, $p = .01$), a more dilated left ventricle ($r = .40$, $p = .01$), poorer general health ($r = -.39$, $p = .009$) and more interference to patient's life ($r = .42$, $p = .01$). Patients who received thrombolytic therapy also achieved a longer exercise time ($p = .045$). Neither smoking, obesity, cholesterol level, diabetes, hypertension, or reperfusion period had significant predictive values.

Conclusions: For patients undergoing cardiac rehabilitation program after AMI, clinical parameters are useful in predicting functional and clinical response.