

O-0019

Score of Activities of Daily Living as a Predictor of Mortality Risk for Patients Undergoing In-hospital Cardiac Rehabilitation

Sasanuma Naoki¹⁾, Takahashi Keiko²⁾, Itani Yusuke¹⁾, Tanaka Takashi¹⁾, Fujii Rie³⁾, Soyama Yuko²⁾, Mabuchi Satoshi¹⁾, Kodama Norihiko⁴⁾, Domen Kazuhisa⁴⁾

¹⁾Department of Rehabilitation, Hyogo College of Medicine Hospital,

²⁾Division of Coronary Heart Disease, Department of Internal Medicine, Hyogo College of Medicine,

³⁾Department of Nursing, Hyogo College of Medicine Hospital, ⁴⁾Division of Rehabilitation Medicine, Hyogo College of Medicine

key words cardiac rehabilitation • mortality • functional independence measure

【Purpose】 The aim of this research is to reveal predictors of in-hospital mortality risk by using a score of activities of daily living undergoing cardiac rehabilitation (CR) patients.

【Methods】 This study included 949 patients from January 2010 through December 2011. Inclusion criteria for participate the CR was based on the standard which the Ministry of health, Labor and Welfare in Japan shows. The main outcome measurements were Functional Independence Measure (FIM) scores at beginning of CR and at discharge, CR period, and outcomes to dead or not. Furthermore, age, BMI, complications, comorbidities, and presence of heart failure at admission were investigated. In a Cox's proportional hazards analysis, dead outcome was set of a dependent variable. Another all data were adopted as independent variable. Prior to the hazard analysis, Spearman rank-order correlation analysis was carried out because the connection between each variable was evaluated. The cutoff point of FIM scores were computed using ROC curve and the area under the curve (AUC) was calculated.

【Results】 The case that dead/alive outcome was 55/894 participants. In the hazard analysis, the existence of heart failure ($p < 0.05$), motor and cognitive FIM scores at admission ($p < 0.05$) were extracted as a significant factor. The result of having used ROC curve, the cutoff value determined as 29/30 points in motor FIM and 30/31 points in cognitive FIM score at admission with AUC as 0.784 and 0.757.

【Discussion】 In previous report which dealt with orthopedic patients (Hershkovitz A, et al. 2010), when the admission FIM score was below 39 points, the mortality rate increased. Our result was consistent with this previous report. In-hospital phase CR, the mortality risk might be higher with the motor and cognitive FIM scores were below 30 and 31 points.