

Table 6. Correlations between the time when treadmill was first used, maximal activity level (mets), and measured variables at different time periods

Variable	Time treadmill was first used after the rehabilitation program began	Time treadmill was first used after surgery	Maximal METs reached on day of hospital discharge
Six-minute walking distance			
Day of hospital discharge	-0.538**	-0.579**	0.240
One week after hospital discharge	-0.555**	-0.645**	0.411
Four weeks after hospital discharge	-0.09*	-0.527*	0.414
Fatigue			
Day of hospital discharge	0.773**	0.709**	-0.344
One week after hospital discharge	0.443*	0.555**	-0.315
Four weeks after hospital discharge	0.385	0.466*	-0.361
Self-efficacy of daily activity			
Day of hospital discharge	-0.536**	-0.720**	0.385
One week after hospital discharge	-0.462*	-0.445*	0.483*
Four weeks after hospital discharge	-0.314	-0.481*	0.252

* $p < 0.05$; ** $p < 0.01$. METs: metabolic equivalents; 1 MET = 3.5 O₂ ml/kg/min.

was first used after surgery and the rehabilitation program started were significantly correlated to 6-min walking distance, fatigue, and self-efficacy. The maximal METs reached on the day of hospital discharge was positively correlated to the self-efficacy score ($r = 0.438$, $p < 0.05$) obtained 1 week after hospital discharge.

DISCUSSION

The findings of this study reveal that CABG patients with no serious complications discharged from the hospital by about 8 days after surgery, on average, stayed 2 to 3 days in intensive care units for, and 5 to 6 days in regular wards. The period of hospitalization was shorter than that given in previous reports.^{13,17} Therefore, a more-feasible inpatient cardiac rehabilitation program is needed to cultivate the CABG patient's capability and confidence to perform daily activities after being discharged from the hospital.

In this study, patients were transferred to regular wards 2.72 days after surgery, and subjects could achieve 3.0 METs of activity by 6.25 days, 3.7 METs by 6.87 days, and 4.5 METs by 7.78 days after surgery. In a comparison with previous studies, Kao¹⁷ reported that patients could achieve 3.5 METs of activ-

ity 7.32 days after surgery, and Jeng¹³ reported that patients could achieve 3.0 METs of activity without feeling that it was strenuous 8.5 days after surgery. Don et al.¹⁸ reported that patients could reach 2.5 METs by 7.6 days, and 3.3 METs by 13.6 days after surgery. Our findings show that the activity intensity achieved based on an inpatient treadmill exercise program of this study was higher and the time needed to achieve the same level of activities was shorter than those from previous studies. This is closer to the recommendation from the American College of Sports Medicine² that an activity capability of at least 5 METs is a minimal requirement for cardiac patients before discharge from the hospital.

With respect to physical activities, all subjects could reach 2.7 METs of daily activity (taking care of oneself, such as eating, dressing, going to the toilet, bathing, showering, etc.) within 1 week after hospital discharge. There were 78.38% (18 patients) of subjects executing 5.5 METs of daily activity (climbing a flight of stairs or walking up a hill), among which 15 people did not feel these were strenuous at all. Four weeks after surgery, 100% people achieved 5.5 METs of activity with none having a feeling of having exerted themselves excessively. Compared to results reported by Tsai et al.¹⁹ none of the CABG subjects could perform 4.0 or greater METs of activity 1 week