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# EFFECTS OF LEG STRENGTH AND BICYCLE ERGOMETRY EXERCISE TRAINING ON CARDIOVASCULAR DECONDITIONING AFTER 30-DAY HEAD-DOWN TILT BED REST

**Abstract**

The purpose of this study is to determine if the intermittent leg muscular strength and bicycle ergometry exercise training program could counteract cardiovascular deconditioning induced by prolonged -6 degree head-down bed rest (BR). Fifteen male subjects were allocated into group A (n=5, 30d BR without exercise training), group B (n=5, 30d BR with leg muscular strength exercise training) and group C (n=5, 30d BR with bicycle ergometry exercise training). The orthostatic tolerance of the test subjects was determined by +75/20min head-up tilt test (HUT) and maximal exercise tolerance was determined by bicycle ergometry test (BET) before and after BR. The results were as follows: (1) Compared with that before BR, orthostatic tolerance time decreased dramatically by 57.6The results indicated that leg muscular strength and bicycle ergometry exercise training could attenuate to some extend the cardiovascular deconditioning induced by 30d BR, and the latter training method was relatively effective.