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## Physical function and activity of daily living after bypass surgery in patients with critical limb ischemia are insufficient

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### 【Purpose】

The aim of this study was to clarify the difference in the postoperative physical function and activity of daily living (ADL) between patients with intermittent claudication (IC) and with critical limb ischemia (CLI)

### 【Methods】

The clinical records of 113 patients undergoing a bypass surgery for peripheral artery disease (PAD) from January 2012 till March 2014 were reviewed retrospectively. Patients who underwent major amputation were excluded. Based on the preoperative ischemic level of a lower limb, they were divided into two groups; 49 patients with IC and 64 patients with CLI. They were compared in regard with the Barthel Index (BI, range 0-100) and the walking ability, which is the mobility item of the BI (range 0-15), assessed at discharge. In addition, the six-minute walk distance (6MWD) and the Medical Research Council muscle strength scale (MRC scale, range 0-60) were evaluated in 76 patients. Multivariate analysis was performed to detect significant factors in each measure.

### 【Results】

The BI and walking ability were 94.0 and 14.2 in patients with IC and 62.4 and 7.3 in patients with CLI, respectively, with significant differences in each measure ( $p < 0.001$ ). There were also significant difference in the 6MWD and MRC scale; 308.5m and 197.0m ( $p < 0.001$ ), and 57.5 and 53.6 ( $p = 0.01$ ) in patients with IC and CLI, respectively. Multivariable analysis showed age and CLI to be significant negative factors in the BI and 6MWD.

### 【Conclusions】

The physical function and ADL were significantly inferior in patients with bypass surgery for CLI at discharge and continuous multidisciplinary rehabilitation after discharge may improve the physical function and ADL in patients with CLI.