

O-0025**Criterion-related validity of the six-minute walk test for patients with lumbar spinal stenosis**

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【Purpose】

Walking disability is one of the most vital impairments for lumbar spinal stenosis (LSS). The 6-minute walk test (6MWT) has been validated as an outcome measure in patients with circulatory or respiratory disease. In addition, there are several studies on the 6MWT in elder people or patients with orthopedic disease in recent years. However, the criterion-related validity of the 6MWT has not been studied enough for the patients with LSS. In this study, we evaluated the criterion-related validity of the 6MWT by examining a correlation with a self-report questionnaire.

【Methods】

This study included 75 patients (Age : 71 ± 8 y.o) following rehabilitation after the surgery of LSS. They completed Zurich Claudication Questionnaire (ZCQ) and performed the 6MWT before the surgery and three months after the surgery. Correlation with ZCQ subscales (symptom severity and physical function) was examined to evaluate the criterion-related validity of the 6MWT.

【Results】

ZCQ score and the parameters of the 6MWT after the surgery improved significantly compared to the pre-surgery. It was found there were weak correlations between the parameters of the 6MWT and symptom severity scale of ZCQ (distance : $r = -0.30$, $p = 0.009$, walk speed : $r = -0.25$, $p = 0.028$) and physical function scale of ZCQ (distance : $r = -0.38$, $p = 0.002$, walk speed : $r = -0.30$, $p = 0.009$) before the surgery. Also, the parameters of 6MWT showed weak correlations with the symptom severity scale of ZCQ (distance : $r = -0.27$, $p = 0.018$, walk speed : $r = -0.29$, $p = 0.012$), and with the physical function scale of ZCQ (distance : $r = -0.38$, $p = 0.001$, walk speed : $r = -0.36$, $p = 0.001$) after the surgery.

【Discussion】

Stucki et al. (1996) reported ZCQ has the validity and the reliability for the evaluation of the patients of LSS. This study showed the weak relationships between ZCQ subscales and the parameters of the 6MWT at the pre-surgery and the post-surgery. 6MWT would be useful as the valid walk ability evaluation tool for patients with LSS.