

O-0468

Mental practice improve motor imagery in chronic stroke patients. A pilot study

Nagino Koji¹⁾, Kimura Takahiko²⁾, Yokoi Kazuhi¹⁾, Kazumi Fujiwara²⁾, Takeshi Hatta²⁾

¹⁾Faculty of Allied Health Sciences, Kanasai University of Welfare Sciences,

²⁾Faculty of Health Sciences for Welfare, Kansai University of Welfare Sciences

key words Mental practice • motor imagery • chronic stroke patient

【Purpose】

The purposes of this study were to verify whether mental practice (MP) improve upper extremity motor function and ability of motor imagery in chronic stroke patients.

【Methods】

Ten chronic stroke patients (age 75.7 ± 5.3), at least 1 year past from onset, and 15 age matched healthy volunteers (age 70.2 ± 5.7 , 7male 8female) were recruited in this study. Stroke patients were allocated to MP group or control group. In the MP group, patients performed video-instructed MP for 2 times per week for 8weeks. The primary outcome measures were Fugl-Meyer assessment (FMA) and revised Motor Imagery Questionnaire (MIQ-RS). These outcome measures were measured at baseline, 4week and 8week.

【Results】

MIQ-RS kinesthetic and visual motor image were significantly lower in stroke patients compared with healthy volunteers (kinesthetic : patients 35.3 ± 11.1 , healthy 46.6 ± 3.1 , $p = 0.001$; visual : patients 35.3 ± 9.5 , healthy 46.8 ± 3.6 , $p = 0.003$). There was no difference in FMA, MIQ-RS when compared with MP group and control group at baseline. In MP group, there was significant increase of MIQ-RS visual score but was not FMA at 8week. However, FMA score showed a tendency to improve.

【Discussion】

Training effects were not demonstrated after MP in this study. Although FMA score was not reach statistically significant, MIQ-RS score was significantly increased in particular visual motor imagery. These findings showed that video-instructed MP make visual motor imagery rather than kinesthetic. Further studies should explore what kind of MP has effective for improve upper extremity motor function in chronic stroke patients.