ABSTRACT

Objective: To evaluate the effect of additional mirror therapy to standard rehabilitation of hand paresis on motor recovery and hand function after stroke. Design: Randomized, controlled, trial.

Setting: Rehabilitation outpatient clinic, general hospital.

Participants: A total of 18 outpatients with stroke (mean age, 50.56 y), all within 3 weeks-6 months post first-attack stroke, without cognitive and visual impairment.

Interventions: Twenty minutes of mirror therapy program in addition to standard rehabilitation of hand paresis program, or standard rehabilitation of hand paresis program only, 2 days a week, for 10 sessions.

Main Outcome Measures: Brunnstrom stages of motor recovery for hand and hand-related functioning (self-care items of the FIM instrument) were measured at initial before treatment (baseline), after 5 sessions, and after 10 sessions.

Results: Baseline comparisons of demographic and clinical characteristics between the groups showed no difference except for lesion type and initial Brunnstrom stage (p > 0.05). The scores of the Brunnstrom stages for hand and the FIM self-care score improved more in the mirror group than in the control group, after 5 and 10 sessions of treatment compared to baseline (p < 0.05). No significant differences were found in the period after 5 and 10 sessions of treatment. Lesion type and initial Brunnstrom stage showed no effect on the FIM self-care score (p > 0.05).

Conclusions: Addition of 5 and 10 sessions of mirror therapy on standard rehabilitation of hand paresis increases motor recovery and hand function after stroke compared to standard rehabilitation only. There is no difference in motor recovery and hand function in the period after 5 and 10 sessions of treatment between groups receiving mirror therapy and the standard rehabilitation only group.

Keywords: stroke, rehabilitation, mirror therapy, motor recovery.