

Effectiveness of Constraint-Induced Movement Therapy combined with Mirror Therapy on Upper Motor Functions in Stroke Patients

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Abstract

Background: In all stroke survivors, 70-80% is suffered from motor functional disabilities. Constraint-induced movement therapy is an effective treatment method that has been used for the treatment of motor function in stroke patients. We have combined Constraint-induced movement therapy with another intervention Mirror therapy to assume better and quick results in improving motor function in stroke patients.

Methods and findings: Twenty-four patients with stroke were randomly divided into two groups: Constraint-induced movement therapy combined with mirror therapy group (n=12) and Constraint-induced movement therapy group (n=12). Both groups received interventions for a total of two weeks; (Constraint-induced movement therapy 6 hours per day and mirror therapy for 30 minutes per day) and were assessed by using the Korean version of the Modified Barthel Index scale. After two weeks of treatment, the Constraint-induced movement therapy combined with the mirror therapy group showed greater improvement than the Constraint-induced movement therapy group alone in improving upper motor function in patients with stroke ($p<0.01$).

Conclusion: Constraint-induced movement therapy combined with mirror therapy showed more improvement as compared to Constraint-induced movement therapy alone in the fine motor functions of patients with stroke.