

Abstracts

Moseley GL Graded motor imagery for pathologic pain: a randomized controlled trial. *Neurology*. 2006 Dec 26;67(12):2129-34.

Background: Phantom limb and complex regional pain syndrome type 1 (CRPS1) are characterized by changes in cortical processing and organization, perceptual disturbances, and poor response to conventional treatments. Graded motor imagery is effective for a small subset of patients with CRPS1.

Objective: To investigate whether graded motor imagery would reduce pain and disability for a more general CRPS1 population and for people with phantom limb pain.

Methods: Fifty-one patients with phantom limb pain or CRPS1 were randomly allocated to motor imagery, consisting of 2 weeks each of limb laterality recognition, imagined movements, and mirror movements, or to physical therapy and ongoing medical care.

Results: There was a main statistical effect of treatment group, but not diagnostic group, on pain and function. The mean (95% CI) decrease in pain between pre- and post- treatment (100 mm visual analogue scale) was 23.4 mm (16.2 to 30.4 mm) for the motor imagery group and 10.5 mm (1.9 to 19.2 mm) for the control group. Improvement in function was similar and gains were maintained at 6-month follow-up.

Conclusion: Motor imagery reduced pain and disability in these patients with complex regional pain syndrome type I or phantom limb pain, but the mechanism, or mechanisms, of the effect are not clear.

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Daly AE, Bialocerkowski AE. Does evidence support physiotherapy management of adult Complex Regional Pain Syndrome Type One? A systematic review. *Eur J Pain*. 2008 Jul 9. [Epub ahead of print] doi:10.1016/j.ejpain.2008.05.003

Objective: To source and critically evaluate the evidence on the effectiveness of Physiotherapy to manage adult CRPS-1. DESIGN: Systematic literature review.

Methods: Electronic databases, conference proceedings, clinical guidelines and text books were searched for quantitative studies on CRPS-1 in adults where Physiotherapy was a sole or significant component of the intervention. Data were extracted according to predefined criteria by two independent reviewers. Methodological quality was assessed using the Critical Review Form.

Results: The search strategy identified 1320 potential articles. Of these, 14 articles, representing 11 studies, met inclusion criteria. There were five randomised controlled trials, one comparative study and five case series. Methodological quality was dependent on study type, with randomised controlled trials being higher in quality. Physiotherapy treatments varied between studies and were often provided in combination with medical management. This did not allow for the 'stand-alone' value of Physiotherapy to be determined. Heterogeneity across the studies, with respect to participants, interventions evaluated and outcome measures used, prevented meta-analysis. Narrative synthesis of the results, based on effect size, found there was good to very good quality level II evidence that graded motor imagery is effective in reducing pain in adults with CRPS-1, irrespective of the outcome measure used. No evidence was found to support treatments frequently recommended in clinical guidelines, such as stress loading.

Conclusion: Graded motor imagery should be used to reduce pain in adult CRPS-1 patients. Further, the results of this review should be used to update CRPS-1 clinical guidelines.