

A systematic review of the treatment for hemiplegic shoulder pain in the first six months following stroke

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Objective: To investigate the effect of physiotherapy and occupational-therapy interventions in the treatment of patients with hemiplegic shoulder pain (HSP) within the first six months following a stroke.

Data Sources: CINHALL, PubMed and Medline were used as search databases.

Study Selection: Randomised, quasi-randomised and controlled trials were included in the review. Pain measurement pre- and –post intervention included with participants within the first six months following stroke. Studies investigating reflex sympathetic dystrophy, or central causes to HSP were excluded along with pharmacological, surgical and invasive stimulation. Eighteen articles were reviewed, with consensus of two reviewers from the original 426 identified.

Data Extraction: Two reviewers independently use the CASP checklists to appraise methodological quality.

Data Synthesis: A qualitative review identified 11 different interventions had been investigated. Studies using Electrical stimulation, interferential current, TENS, aromatherapy and acupressure, dry needling and active assisted hair brushing all found significant improvement on HSP. Stretching was found to have a non-significant increased risk of pain in two out of three studies. Bobath therapy, forced use therapy and passive range of movement using a constant passive movement machine failed to provide a significant improvement in patients with HSP.

Conclusions: The results presented support the use of electrical-stimulation within clinical practice to treat HSP. TENS, interferential-current, hair brushing, dry needling, and aromatherapy combined with acupressure all had a significant effect on HSP, but were limited by under-powered studies. No study attempted to identify the cause for HSP prior to intervention beyond inclusion criteria of a stroke and experiencing shoulder pain.