

Hochsprung et al, 2017 Abstract

Kinesio Taping or Electrical Stimulation in the Prevention of Hemiplegic Shoulder Pain

Objective

To compare the short- and medium-term effectiveness of combining Kinesio Tape (KT) or neuromuscular electrical stimulation (NMES) with a conventional approach to prevent shoulder pain after stroke.

Results

In all study groups, shoulder pain did not appear during the first month, but increased afterward. In the between-group analysis, all groups similarly improved in terms of disability and functionality, with no significant differences observed in any measure. Electrotherapy has been widely used in the clinical setting, but there are still doubts about the efficacy of surface neuromuscular electrical stimulation (NMES) after stroke.

Some studies have reported a positive impact of NMES on pain and upper limb function in stroke patients with a non-functional upper limb. A recent meta-analysis concluded that NMES may prevent shoulder subluxation in the early phase after stroke.

Clinicians and Participants

Thirty-one first-time stroke survivors were recruited in a randomized controlled pilot trial, assigned to a control group, a KT group, or an NMES group. The lead researchers were Alberto M. Heredia-Rizo, PT, Ph.D., Department of Physiotherapy, Faculty of Nursing, Physiotherapy, and Podiatry, University of Seville, and Anja Hochsprung.

Methods

The control group underwent conventional treatment (careful shoulder handling and daily mobilizations). This approach was combined with KT or NMES over the deltoid muscles in the KT and NMES groups, respectively. For the NMES group, a neuromuscular stimulator (Neurotrac™ ETS, Verity Medical) was used.

A conservative treatment based on gentle mobilizations, alone or combined with electrostimulation and proper shoulder positioning and handling, is often used in the clinical setting to prevent spasticity, shoulder subluxation, and pain after stroke.

The full abstract can be found at <https://pubmed.ncbi.nlm.nih.gov/29254115/>.