Eli's Rehab Report

CLINICAL REHAB ROUNDUP: Should You Restrain the Unaffected Limb in Stroke Rehab?

Effects of forced use on arm function in the subacute phase after stroke: a randomized, clinical pilot study. Hammer AM, Lindmark B. Phys Ther. 2009 Jun;89(6):526-39. Epub 2009 Apr 16.

Research shows that patients who have arm paresis after stroke initially use only the unaffected side. Avoidance of the affected upper limb is a behavior called "learned nonuse." But restraining patients' unaffected upper limbs during the subacute phase following stroke does not appear to generate greater improvements in motor impairment and capacity than standard rehab alone, according to a pilot study published in the June issue of Physical Therapy.

Researchers randomly assigned patients, one to six months following stroke, to either a constraint-induced movement therapy (CIMT) group or the standardtraining group. All patients trained five days per week for two weeks.

Findings: Changes in the restrained group did not differ from the changes in the standard training group for any of the outcome measures -- both groups improved over time.

Thus, the results did not support forced use as a reinforcement of standard rehabilitation in the subacute phase after stroke. However, "the patients enrolled in this pilot study did not get the training amount and intensity that patients have received in other studies where a benefit of CIMT was found to be superior to traditional care,"said **Ann M. Hammer, PT, Msc,** researcher and doctoral student at -rebro University in -rebro, Sweden. "The combined results of this pilot study and other studies suggest the need to match the treatment to the level of severity but also indicate a continued need to investigate the optimal timing of interventions as well as duration and intensity," Hammer continued. "Our findings will be used to help design future clinical trials that we hope will help us arrive at a definitive conclusion regarding the clinical implementation of forced use for upper-limb rehabilitation."

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