Effect of Movement based priming combined with task specific training on upper limb recovery in people with stroke.

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Priming is a nonconscious process associated with learning where exposure to a stimulus alters the response of another stimulus. When used successfully in conjunction with a therapeutic intervention, priming results in a behavior change coinciding with changes in neural processes. [1]. Priming may improve the effect of neurorehabilitation therapies addressing upper limb impairments and functional limitations in people with stroke such as task specific training.[2] **Objectives:** To investigate the effect of movement based priming combined with task specific training on upper extremity recovery in people with stroke. **Methodology:** 24 subjects with subacute stroke, attending dept. of occupational therapy, National Institute for the locomotor disabilities, Kolkata, West Bengal, India participated in a single blinded randomized pre-test and post-test experimental study. Subjects were randomized over two intervention groups.Group-1 received movement based priming with task specific training (MBP+TST) (n=12), and Group-2 (n=12) received task specific training alone (TST only).Group-1 (MBP+TST) group received 20 minutes of priming along with task specific training of 40 minutes for a session of 1 hour/day, 3 days /week, for 6 weeks.Group-2 (TST only group) received 1 hour of task specific training only. Pretreatment and Post treatment measurements were taken for upper extremity motor ability, and functional use of the upper extremity by using Fugl-Mayer measurement of physical performance (FMA-upper extremity section), Motor Activity Log respectively.

RESULT: Both (MBP+TST) and TST only group showed improvement in motor ability and functional use of upper limb (p=0.01). There was a better improvement in Fugl-Meyer score in (MBP+TST) group in comparison to TST only group (p=0.04).

CONCLUSION: Priming when combined with task specific training results in better upper limb recovery than task specific training alone.

References:

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