

14<sup>th</sup> World Congress on

## Neurology and Neurological Disorders

July 17-18, 2017 Chicago, USA

**Effect of modified constraint induced movement therapy for patients with sub-acute stroke: A randomized clinical trial**Manijot Kaur<sup>1</sup>, Ashmpreet Kaur<sup>2</sup>, Narkeesh Arumugam<sup>2</sup>, Shefali Gambhir<sup>2</sup> and Kanimozhi D<sup>2</sup><sup>1</sup>Vijayanand Diagnostic Centre, India<sup>2</sup>Punjabi University Patiala, India

**Background & Purpose:** Stroke is the most common cause of mortality and a major cause of disability among neurological disorders. A variety of deficits are possible including changes in the level of consciousness and impairment of sensory, motor, cognitive, perceptual and language functions. Among motor deficits, impaired upper extremity function is a common and devastating problem for stroke survivors. The purpose of this study was to evaluate the effect of m-CIMT as compared with conventional physiotherapy treatment on hand function after sub-acute stroke in home care settings in Indian scenario.

**Materials & Methods:** A total of 15 sub-acute stroke subjects were randomly divided into experimental group that is m-CIMT (n=8) and in a control group (n=7). The experimental group (age 60.50±10.51) consisted of 1 hour therapy session emphasizing affected arm use, occurring 5 times/week for 3 weeks. A mitt was used to restrain the affected arm for 3 hours/day for 3 weeks. The control group (age 56.71±11.49) consisted of conventional rehabilitation for time-matched exercise program. The outcome measures were evaluated at baseline and post-intervention 11th and 22nd day by using the Chedoke Arm and Hand Activity Inventory (CAHAI), Fugl-Meyer Assessment (FMA), Modified Ashworth Scale (MAS) and Functional Independence Measure (FIM).

**Results:** After intervention, significant effects were observed in m-CIMT group as compared to conventional group. The t-value of CAHAI from (baseline - 22nd day) was 11.743 (p<0.05), for FMA was 6.911 (p<0.05) and on FIM was 9.269 (p<0.05), whereas no significant result was found on MAS 1.075 (p>0.05).

**Conclusion:** m-CIMT group shows significant improvement in the manual dexterity, hand impairment and quality of life than conventional physiotherapy treatment group. The effect of m-CIMT and conventional treatment on muscle tone shows no significant improvement among stroke subjects.

manijot88@gmail.com