CHARACTERISTICS OF THE INFLUENCE OF KINESITHERAPY ON MOTOR ACTIVITY IN ISCHEMIC STROKE IN CHRONIC PERIOD

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BACKGROUND AND AIMS

Functional recovery mechanisms are thought to be related to biological recovery of the brain lesion, adaptive reorganization by engaging new neural networks, and the use of compensatory strategies to accomplish a specific task - replacement behavior or training the patient to compensate for his or her deficit.

The aim of the study is to trace the effects of specialized kinesitherapeutic methodology (SKTM) on motor activity in patients with supratentorial unilateral stroke in the chronic period (SUSChP).

METHODS

The study was conducted with 67 patients with SUSChP (56 patients included in the experimental group - 32 men and 24 women, with duration of disease 7.8 ± 2.0 months, and 11 patients in the control group - 9 men and 2 women, with duration of disease 7.3 ± 1.5 months).

To assess the functionality of motor recovery using the modified scale Chedoke-McMaster and Ashworth scale. Stage of motor recovery is evaluated at baseline, 10-day and 1st month after the start of KT in both groups. Patients in the experimental group were treated with a specialized 10-day SKTM, which later continued to perform as adapted exercise program at home for a period of one month. Spearmans correlation analysis was used to search a connection between changes in the different metrics.

RESULTS

From the presented correlation dependencies in the course of the applied SCTM, a negative correlation dependence was found between functional recovery and muscle tone of the upper and lower extremity, with the highest significance on day 10. It is with an increase in the stage of functional recovery that a decrease in the abnormal muscle tone of the upper and lower extremities is observed.

CONCLUSIONS

This is due to the effect of targeted upper and lower extremity exercises with the ultimate goal of improving motor activity.

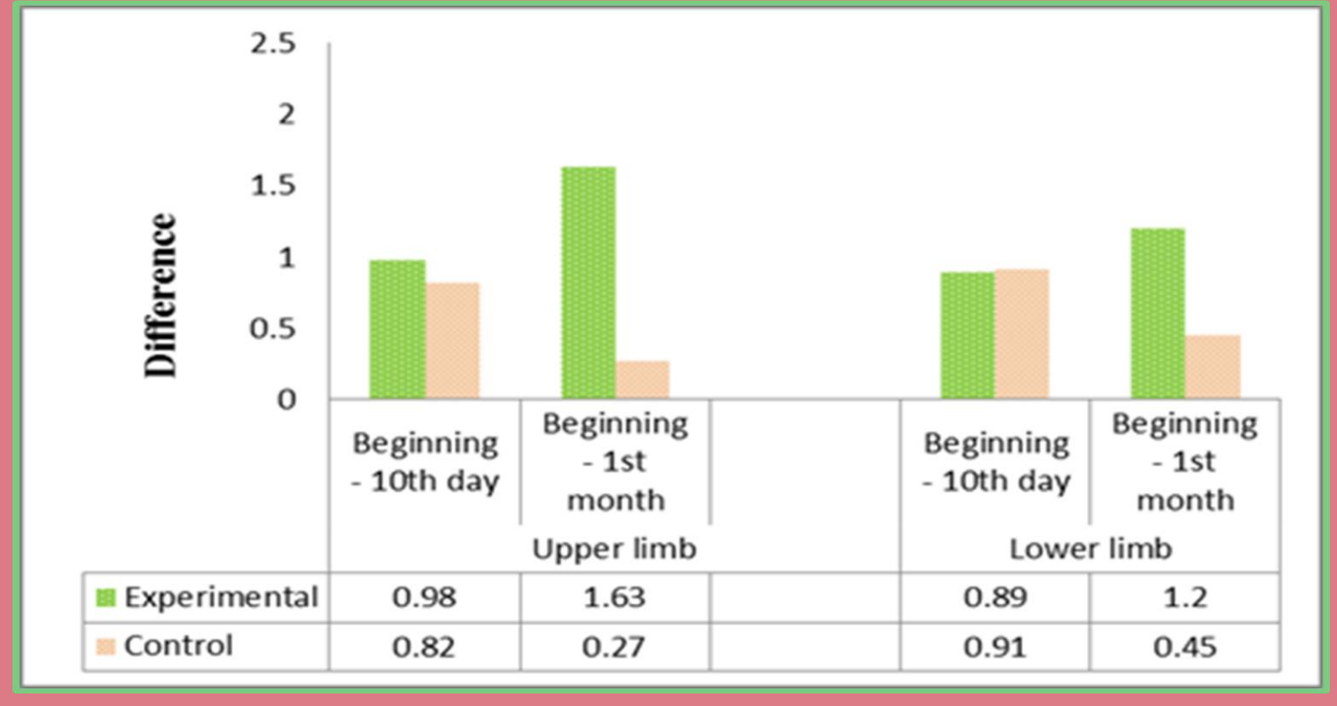


Fig. 1 Graphical representation of changes in motor recovery (modified Chedoke-McMaster test)

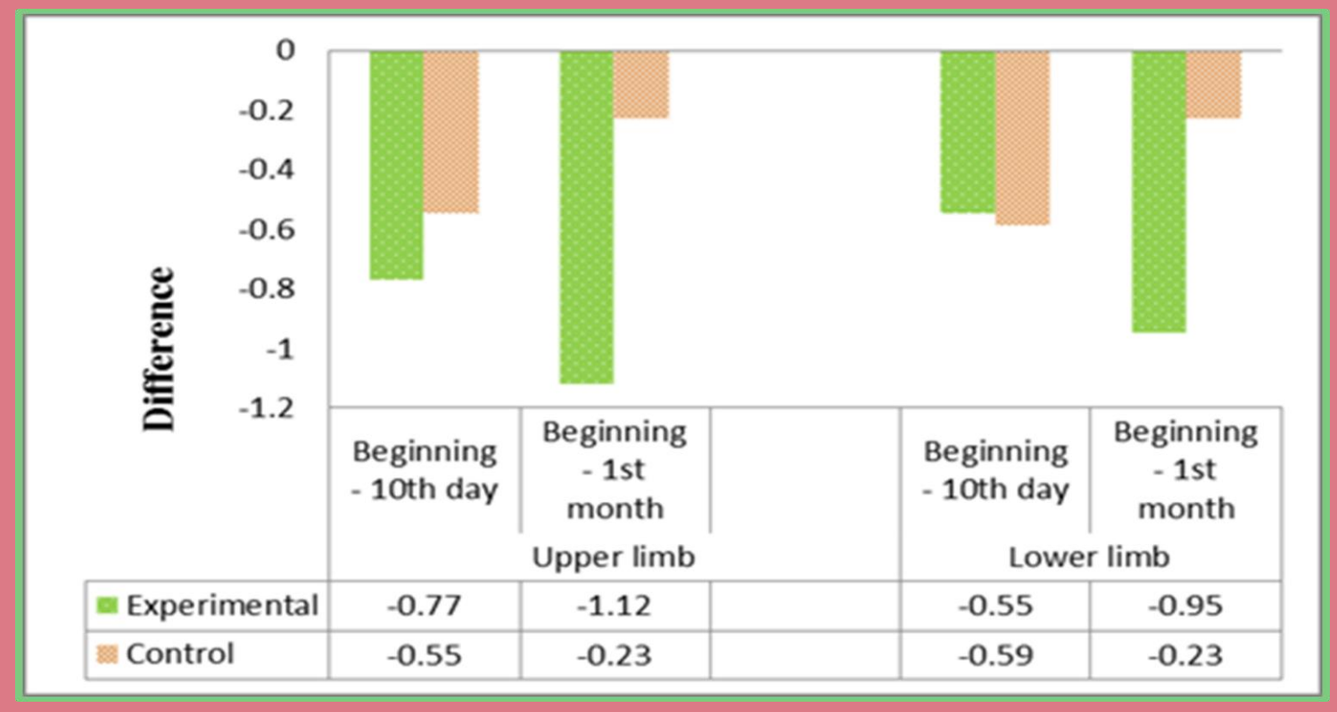
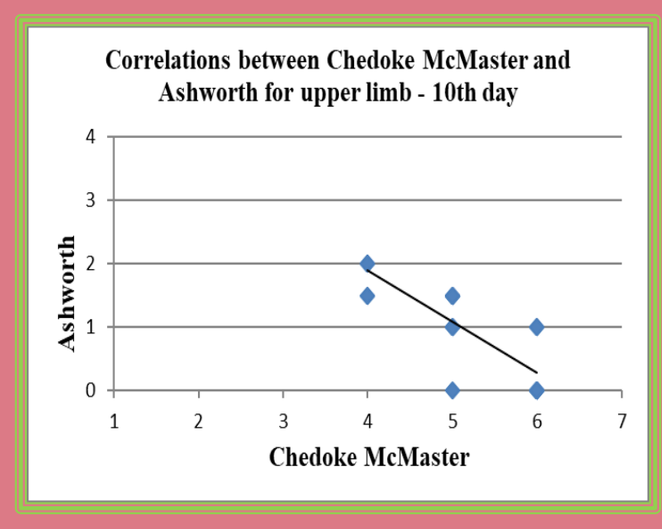


Fig. 2 Graphical representation of Changes in muscle tone



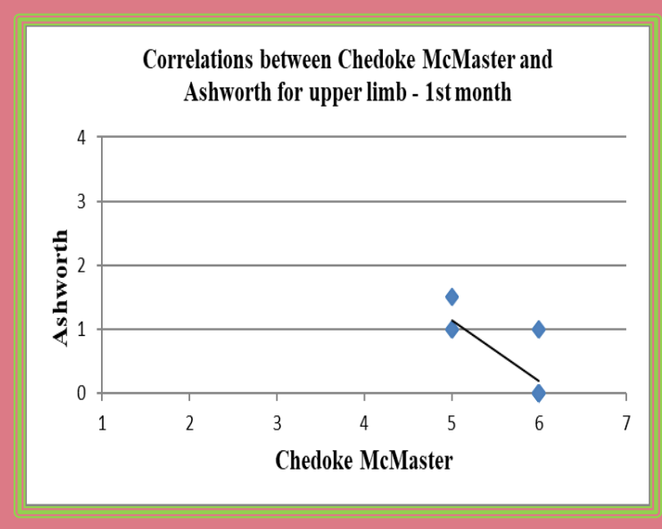
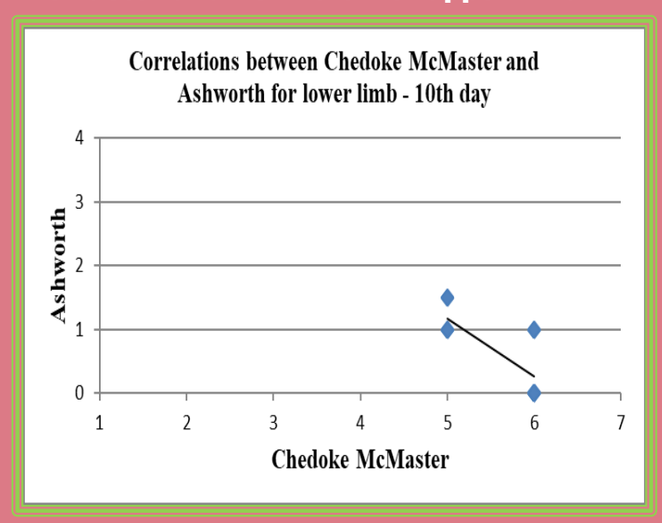


Fig. 3 Spearmans correlation analysis and connections between changes in Chedoke McMaster and Ashworth for upper limb



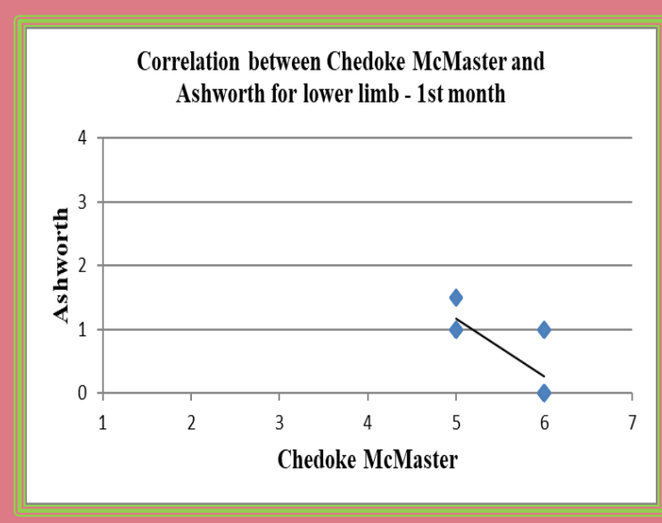


Fig. 4 Spearmans correlation analysis and connection between changes in Chedoke McMaster and Ashworth for lower limb