

EFFECT OF ACULASER ON SPASTICITY IN CHILDREN WITH SPASTIC CEREBRAL PALSY

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ABSTRACT

This study was performed to detect the effect of Aculaser on spasticity in children with spastic cerebral palsy. Sixty spastic cerebral palsy children with their age ranging between 1 and 4 years old (mean age 2.57 ± 1.3) were included in the current study. They were distributed into three equal groups according to the clinical types of spastic cerebral palsy; Hemiplegia, Diplegia and Quadriplegia groups, each group contained 20 children and subdivided into two equal subgroups; control and study subgroups, each subgroup contained 10 children. Pre and post treatment evaluation was applied to the sixty children including the following variables; muscle tone of the wrist flexors & ankle planter flexors, range of motion of wrist flexion & extension and ankle planter flexion & dorsiflexion, and the gross motor function measure (GMFM). Pretreatment evaluation was applied just prior starting the treatment of the individual child, and the post treatment evaluation was applied immediately after the end of the study period of each individual child (3 months). The control subgroups have received the physiotherapy program of cerebral palsy 3 times per week for successive 3 months, while the study subgroups have received the same physiotherapy program with the same frequency and period in addition to the

application of Aculaser twice per week for successive 3 months. The results of comparing between the post treatment means of the equivalent control and study subgroups revealed statistically highly significant improvements in muscle tone variable of all groups in favor of the study subgroups. The comparisons between the post treatment means of the equivalent control and study subgroups of range of motion variable of all groups have shown a statistically non-significant difference. The comparisons between the post treatment means of the equivalent control and study subgroups of gross motor function measure scale (GMFM) variable have shown a statistically non-significant difference in total score, while the goal total score of all subgroups have shown highly statistically significant difference. From these results, it can be concluded that the use of Aculaser for spastic Cerebral Palsy children is beneficial for muscle tone management.

Key words: Aculaser, spasticity, cerebral palsy