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Effect of Core Stabilizing Program on Balance in Spastic Diplegic Cerebral Palsy Children

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Abstract : Background: Balance is a component of basic needs for daily activities and it plays an important role in static and dynamic activities. Core stabilization training is thought to improve balance, postural control, and reduce the risk of lower extremity injuries.
The purpose of this study was to study the effect of core stabilizing program on balance in spastic diplegic cerebral palsy children.
Subjects and Methods: Thirty diplegic cerebral palsy children from both sexes ranged in age from six to eight years participated in this study. They were assigned randomly into two groups of equal numbers, control group (A) children were received selective therapeutic exercises and study group (B) children were received selective therapeutic exercises plus core stabilizing program for eight weeks. Each patient of the two groups was evaluated before and after treatment by Biodex Balance System in laboratory of balance in faculty of physical therapy (antero posterior, medio lateral and overall stability). Patients in both groups received traditional physical therapy program for one hour per day and three sessions per week and group (B) were received core stabilizing program for eight weeks three times per week.
Results: There was no significant difference between the two groups in all measured variables before wearing the orthosis ($p>0.05$), while there was significant difference when comparing pre and post mean values of all measured variables in each group ($p<0.01$). When comparing post mean values between both groups, the results revealed significant improvement in favor of group (B) ($p<0.01$). **Conclusion:** core stabilizing program is an effective therapeutic exercise to improve balance in diplegic cerebral palsy children.
Key words: cerebral palsy, diplegia, balance and core stabilizing.

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