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## Comparative study of baclofen in combination with intensive rehabilitation and only intensive rehabilitation in spastic cerebral palsy- A randomized clinical trial

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**Introduction:** Cerebral palsy is the most common childhood disability with a prevalence of 1.5 to 3 per 1000 live births. Spasticity is one of the common features of cerebral palsy as it contributes to limitations in body structure and function, leading to deformity. The treatment of cerebral palsy is multifactorial. In this study, we find out the combined efficacy of baclofen and intensive rehabilitation in the treatment of spastic cerebral palsy.

**Material & Methods:** This randomized clinical trial was conducted over 60 patients in the Dhaka Medical College Hospital, Dhaka, Bangladesh from January 2011 to December 2011. The patient with cerebral palsy aged between 1 year to 12 years satisfying the inclusion and exclusion criteria was randomly enrolled in two groups; Group- A (case) included 30 patients received only intensive rehabilitation and Group- B (control) included 30 patients who received baclofen orally two times daily according to the body weight regularly in combination with intensive rehabilitation 1 hour daily five times a week for 24 weeks. All patients were followed up at 4 weeks interval and were evaluated for a total of 24 weeks. An assessment was done by Modified Asworth Scale, Physician Rating Scale and gross Motor Functional Classification System.

**Results:** The combination of Baclofen and intensive rehabilitation has superior efficacy in reducing tone in spastic cerebral palsy over only rehabilitation measured by using a Modified Ashworth scale ( $p < 0.05$ ). The combination of Baclofen and intensive rehabilitation is also superior in joint angle improvement in spastic cerebral palsy measured by a physician rating scale crouch ( $p < 0.05$ ) and foot contact, ( $p < 0.05$ ) and also improvement in gross motor function ( $p < 0.05$ ).

**Conclusion:** For reduction of generalized spasticity regarding muscle tone, range of motion of the joint and improvement of gait in cerebral palsy patients, a combination of Baclofen and intensive rehabilitation may be used.

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