The effects of Kinesio® taping on sitting posture, functional independence and gross motor function in children with cerebral palsy

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Abstract

PURPOSE: The aim of this study was to investigate the effects of Kinesio® tape (KT) application on sitting posture, gross motor function and the level of functional independence.

METHOD: The study included 31 cerebral palsied children scored as level III, IV or V according to gross motor functional classification system (GMFCS). Children were randomly separated into two groups as study (n=15, receiving KT and physiotherapy) and control (n=15, receiving only physiotherapy). KT application was carried out for 12 weeks. Gross motor function measure (GMFM), functional independence measure for children (WeeFIM) and Sitting Assessment Scale (SAS) were used to evaluate gross motor function, independency in the activities of daily living and sitting posture, respectively.

RESULTS: Compared to initial assessments, both groups showed a significant difference in parameters of GMFCS sitting subscale, GMFCS total score and SAS scores (p<0.05). At the end of 12 weeks, only SAS scores were significantly different in favour of the study group when the groups were compared (p<0.05). Also, post-intervention WeeFIM scores of the study group were significantly higher compared to initial assessment (p<0.05), however, no difference was detected in the control group (p>0.05).

CONCLUSIONS: No direct effects of KT were observed on gross motor function and functional independence, though sitting posture (head, neck, foot position and arm, hand function) was affected positively. These results may imply that in clinical settings KT may be a beneficial assistive treatment approach when combined with physiotherapy.

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