

INTRODUCTION

Cerebral palsy (CP) is a disorder of movement and posture that appears during infancy or early childhood (*Berker and Yalçin, 2008*). It affects 2/1000 live-born children (*Longo and Hankins, 2009*).

It is caused by non-progressive damage to the brain before, during, or shortly after birth (*Berker and Yalçin, 2008*). There are several antenatal factors, including preterm delivery, low birth weight, infection/inflammation, multiple gestations, and other pregnancy complications, that have been associated with CP in both the preterm and term infant, with birth asphyxia playing a minor role (*Longo and Hankins, 2009*).

CP is not a single disease but a name given to a wide variety of static neuromotor impairment syndromes occurring secondary to a lesion in the developing brain. The damage to the brain is permanent and cannot be cured, but the consequences can be minimized (*Berker and Yalçin, 2008*). It primarily affects the neurologic system but secondarily affects the musculoskeletal system through the effects of spasticity, dystonia, and other movement disorders (*Lynn et al., 2009*).

Management options for CP include support of growth and nutrition, dental hygiene, management of gastrointestinal

problems and therapy for motor function that comprises physical therapy and orthopedic surgery (*Berker and Yalçin, 2008*).

In the past decade, growing recognition of the importance of motor activity for the development and maintenance of central nervous system pathways and for recovery of function post injury has provided new avenues for rehabilitation. Physical therapy is likely to have a prominent role in stimulating neuroplastic changes in damaged developing nervous systems that may finally alter the natural history of these disorders, which has not yet been possible (*Damiano, 2009*).

Rehabilitation of the child who has CP consists of improving mobility, preventing deformity, helping the child to learn the skills he or she needs in daily life, and educating the parents about the child's problem. Rehabilitation should help to provide schooling, sports, and recreation for the child. Methods used in CP rehabilitation are physiotherapy, occupational therapy, bracing, assistive devices, adaptive technology, and sports and recreation (*Berker and Yalçin, 2008*).

As most children with CP survive into adulthood, the condition and its co-morbidities should be managed with a developmental and life-long perspective in the context of the family. A rehabilitation program for children with CP goes beyond treating the motor impairments (*Gorter, 2009*).

Furthermore, assistive technology systems can provide opportunities for children with physical limitations to interact with their world, enabling play, communication, and daily living skills (*McCarty and Morress, 2009*).