Review article

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USE OF BOTULINUM TOXIN A AND SUBSEQUENT REHABILITATION IN AMBULATORY CHILDREN WITH SPASTIC CEREBRAL PALSY – EFFECTS AND DILEMMAS

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The definition of cerebral palsy (CP) includes a group of permanent developmental disorders of movement and posture that cause activity limitation due to non-progressive lesions in the developing fetal or newborn infant brain. The most common type of CP is spastic cerebral palsy (SCP). One of the primary aims in treating children with SCP is to enable them to perform functional activities, to stimulate effective movement, to prevent deformities of bone and joint system, and to reduce pain. Limb deformities are the most prominent manifestation in children with SCP, greatly preventing them from performing activities of daily living. The reduction of spasticity and prevention of contractures, the development of performing functional activities in the full potential, as well as delays in performing surgical intervention, have dramatically increased the use of botulinum toxin type A (BTA) in treating children with CP lately. It is known as the most potent neurotoxin found in nature that reduces spasticity after application and results in irreversible denervation at the neuromuscular junction, while functional recovery is time limited. In that time period it is necessary to evaluate the functional motor status of a child, clearly and realistically define aims in cooperation with parents, and apply adequate rehabilitation protocol. The international consensus statement in 2010 defined the protocol, dosage, the site of application, and rehabilitation protocol. After being used for two and a half decades, certain dilemmas arose, particularly those regarding rehabilitation effects after BTA application.

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