Classification Systems in Cerebral Palsy

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- Cerebral palsy Classification Impairment
- · Activity limitation

The past decade has seen significant progress made in the evaluation of cerebral palsy (CP) and treatments for its sequelae. Because of advances in neonatal care and increased survival rates for preterm and low birth weight infants, efforts are being made to document the incidence and prevalence of CP through registries in Europe and Australia. Advances in orthopaedic care for children with CP have also been significant. Computerized gait analysis has led to refinements of orthopedic surgeries performed in these patients. Single event, multilevel surgery is now considered the standard of care in areas where gait analysis testing is available. New treatments have emerged, such as botulinum toxin injection and intrathecal baclofen, to treat spasticity and other types of hypertonia directly.

Because of increasing interest in conducting large-scale, multicenter investigations into the epidemiology of CP and its prevention and treatment, efforts have been made to establish a standard definition and classification systems for CP. In recent years there has also been increased focus on measurement of functional status of patients, and new classifications for gross and fine motor function have been developed.

The purpose of this article is to update the orthopaedic community on the current classification systems for patients with CP. This information will be of value to surgeons in determining patients' suitability for certain treatments and will also assist them in reviewing current literature in CP.

DEFINITION OF CEREBRAL PALSY

In 2007, the results of an International Workshop on Definition and Classification of CP were published. The group included experts in the field of CP and developmental disorders from around the world. The purpose of the workshop was to update the existing definition and classification of CP to incorporate current knowledge about the disorder, and to improve communication among clinicians, researchers and epidemiologists. The following definition of CP was agreed upon:

Cerebral palsy describes a group of permanent disorders of the development of movement and posture, causing activity limitation, that are attributed to non-progressive disturbances that occurred in the developing fetal or infant brain. The motor disorders of cerebral palsy are often accompanied by disturbances of sensation, perception, cognition, communication and behavior, by epilepsy, and by secondary musculoskeletal problems.²

This definition improves upon previous ones by emphasizing that CP involves a variety of disorders caused by various factors acting at different points in fetal development, and also highlights the importance of comorbidities that accompany the orthopaedic and neurologic manifestations. The definition excludes neurodevelopmental disabilities in which movement and posture are unaffected, as well as progressive disorders of the brain. The

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