

RCS 6080
Medical and Psychosocial Aspects of
Rehabilitation Counseling

Cerebral Palsy

Cerebral Palsy

- Cerebral palsy (CP) denotes a group of static encephalopathies of diverse etiologies that result from nonprogressive lesions of the brain sustained in the pre-, peri-, or postnatal period
- They are characterized by abnormalities of muscle tone, movement, and posture, of which spasticity is the most common

Cerebral Palsy

- Secondary dysfunction and deformities occur, but not the frank neurological regression seen with neurodegenerative disorders
- Other symptoms of cerebral dysfunction, such as learning disabilities, mental retardation, and seizures, may be seen, but it is the motoric dysfunction that is essential to its recognition
- The incidence of CP over the past 20 years has remained at 2 cases per 1,000 births in the US

Prenatal Causes of CP

- Hereditary
- Infections
- Prenatal Anoxia
- Rh Incompatibility
- Prematurity
- Metabolic Disorders
- Unknown Origin

Perinatal Causes of CP

- Trauma (birth injury)
- Lack of Oxygen (fetal asphyxia, anoxia, or hypoxia)

Postnatal Causes of CP

- Traumatic Head Injuries
- Infections or Toxic Conditions
- Brain Hemorrhages or Clots
- Cerebral Anoxia
- Brain Tumors

Functional Presentation of CP

- CP is classified on the basis of etiology, tone, and anatomical distribution of neurological abnormalities
- Pyramidal or spastic CP is the most common, occurring in 65-75% of all cases
- Extrapyrarnidal or nonspastic types of CP are responsible for about 20% of cases

Differential Diagnosis

- Up to 40% of people with an initial diagnosis of CP have been incorrectly diagnosed
- Other disorders that present with gross motor delays, aberrant tone, and abnormal movement patterns include mental retardation, neurodegenerative disorders, hydrocephalus, subdural effusion, slowly growing brain tumors, spinal cord lesions, MD, spinal muscular atrophy, and congenital cerebellar ataxia

Differential Diagnosis

- Investigations that may be helpful in substantiating or excluding the diagnosis of CP include the following:
 - CT or MRI scans to assess for structural lesions
 - Ultrasound of the head to exclude the possibility of intraventricular hemorrhage
 - Lumbar puncture to exclude the elevation in protein in the cerebrospinal fluid that is seen with neurodegenerative disorders
 - Serum uric acid and blood and urine assays for amino and organic acids to exclude congenital metabolic disorders
 - Viral and parasitic titers (TORCH) to exclude the possibility of intrauterine-acquired infections
 - Chromosomal studies to exclude such abnormalities

Associated Medical Problems

- Mental retardation coexists in 50-60% of people with CP
- Communication and learning disorders coexist in 40-50% of individuals with CP
- Visual problems coexist in 50% of people with CP

Associated Medical Problems

- Deafness coexists in 6-16% of individuals with CP
- Seizure disorders coexist in 33% of persons with CP
- Orthopedic deformities coexist in 50% of people with CP

Clinical Findings and Prognostic Indicators

- CP may be difficult to identify at less than 1 year of age
- Motor development in the subtypes of CP varies, but common denominators exist

Therapeutic Intervention with CP

- Direct treatment for CP is unavailable
- Secondary treatments include therapy, tone-altering medications, provision of adaptive equipment to enhance the person's level of function, and orthopedic and neurosurgical procedures that correct deformities and normalize tone

Vocational and Medical Problems of Adults with CP

- Lives of 50% of adolescents with CP may be characterized by dependence on parents for personal care, lack of responsibility for home chores, lack of information about sexuality, and limited participation in social activities and sexual relationships
- Bleck (1987) found that only 30-50% of individuals with CP were employed full-time at maturity
- 90% survival into adulthood is seen with CP

Additional Resources and Information from the Web

- UCP (www.ucp.org)
- The American Cerebral Palsy Information Center (www.cerebralpalsy.org)
- American Academy for Cerebral Palsy and Developmental Medicine (www.aacpdm.org/home.html)
- Easter Seals (www.easter-seals.org)
- JAN – Worksite Accommodation Ideas for Individuals who have CP (www.jan.vvu.edu/media/CP.html)
