

Cerebral Palsy (CP)

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Definition

A disorder of movement or posture that is non-progressive, recognized in infancy, and not due to a specific cause.

Introduction

Cerebral Palsy was first recognized in the 1800's. It was originally referred to as Little's disease, named after Dr. Little, who first studied the disorder. In most people affected with Cerebral Palsy, the muscle tone becomes increased, so that their arms and or legs become difficult to bend and move. This increase in muscle tone is referred to as spasticity. CP does lead to life long disability, and the extent of the disability is dependent on how severe the persons spasticity is. Cerebral Palsy may be caused by a variety of underlying disorders. CP is not necessarily associated with mental retardation, but it can be. Cerebral Palsy is broken down into 4 basic categories.

- **Hemiplegic Cerebral Palsy** – this is seen when the muscle tone is increased in the arm and leg on one side of the body.
- **Tetraplegic Cerebral Palsy** – this is seen when the muscle tone is increased in the arms and legs on both sides of the body. In most cases the legs are more affected than the arms.
- **Spastic diplegia** – occurs when the person has increased tone in their lower extremities.
- **Choreoathetotic Cerebral Palsy** – this form of CP is associated with uncontrolled movement of the arms, and or legs.

Diagnosis

This is based on clinical manifestations of spasticity in the extremities. CP is diagnosed in children greater than one year of age, after progressive disorders and other named syndromes have been excluded.

Treatment

Non-invasive measures include

- Physical therapy
- Occupational therapy

Medications commonly used include

- Valium
- Baclofen
- Dantrolene
- Zanaflex

Local injections are used in the muscle or in the nerve to weaken the muscle, and allow for ease of movement.

Medications which can be used include

- Botox
- Phenol
- Alcohol

Surgical interventions involve cutting some of the small nerves near the spinal cord as in a dorsal rhizotomy. The muscle tendons are also cut or lengthened surgically to improve the range of movement of the joint. A third surgical intervention is to implant a device which allows Baclofen to be directly injected into the space around the spinal cord. This allows for a higher dose of Baclofen while avoiding sedation.

Conclusion

Cerebral Palsy is a disorder, which may have many different causes. It primarily involves abnormalities of muscle tone, therefore affecting movement and posture. The degree of disability an individual experiences is based on the extent of their spasticity. CP is a lifelong disorder. There are several different types of treatments available to combat the spasticity, but there are not any cures.

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