Summary

Cerebral palsy describes a group of permanent disorders of the development of movement and posture leading to limitation of activity due to non-progressive insult to the developing fetal or infant brain. The motor disorders of cerebral palsy are often accompanied by secondary musculoskeletal problem.

It is caused by non-progressive damage to the brain before, during or shortly after birth.

Diagnosis of cerebral palsy begins with a history of gross motor developmental delay in the 1st year of life, the majority of children with cerebral palsy have some type of movement disorders and it may be associated with other musculoskeletal, gastrointestinal, urinary and psychosocial manifestation.

The Gross Motor Function Classification System has been used to classify cerebral palsy in terms of child's gross motor function and mobility at different age groups. Distinctions between levels of motor function are based on functional limitations, the need for assistive technology, including mobility

devices (such as walkers and crutches) and wheeled mobility, and to much lesser extent quality of movement.

The Functional Mobility Scale has shown to be a better discriminator of differences in ambulatory function among children with cerebral palsy.

The Manual Ability Classification System was designed to describe upper-extremity performance in activities of daily living in children with cerebral palsy.

The evaluation and management of the musculoskeletal dysfunction of children with CP is best accomplished through a team approach, which allows for the combined expertise and interaction of the orthopedic surgeon; pediatrician; neurologist, physical, occupational, speech therapists, nurse, and social worker.

Treatment approaches include:

1-physiotherapy:

Considered one of the mainstay therapies for CP, it is used to decrease spasticity, strengthen underlying muscles.

Hydrotherapy, in which any exercise or movement done in the water will be easier and more effective at exercising muscles.

Hippotherapy, a very effective means of stretching legs, arms, and the back.

Electrical stimulation, is the application of an electrical current of sufficient intensity to elicit muscle contraction.

Orthoses, are designed to affect the body structure and to assist function.

2- occupational therapy

Should focus on the activities of daily living.

3-speech therapy

It help to improve swallowing and communication.

4-recreational therapy

5-medications

various pharmacological agents decrease spaticity.

Baclofen, tizanidine, diazepam, dantrolene sodium Botulinum toxin, phenol, alcohol…..an injectable therapy ntrathecal baclofen……delivered to the intrathecal space via a catheter attached to an implanted pump.

6-surgery

Rhizotomy : a commonly used treatment for reduction of moderate to severe lower extremity spasticity.

Orthopedic surgery : used to correct deformities induced by muscle overactivity.