Hypertonia Disease

Hypertonia is a condition marked by an abnormal increase in muscle tension and a reduced ability of a muscle to stretch. It is caused by injury to pathways in the central nervous system. These pathways carry information from the central nervous system to the muscles. They control:

- Posture.
- Muscle tone.
- Reflexes.

When the injury occurs in children under the age of 2, the term cerebral palsy is often used. Hypertonia can be so severe that joint movement is not possible. Untreated, it can lead to loss of function and deformity.

CAUSES

Hypertonia may result from:

- Injury.
- Disease.
- Conditions such as:
  - Spasticity.
  - Dystonia.
  - Rigidity.

SYMPTOMS

Symptoms of the three conditions noted above are:

Spastic hypertonia:

- Uncontrollable muscle spasms.
- Stiffening or straightening out of muscles.
- Shock-like contractions of all or part of a group of muscles.
- Abnormal muscle tone.

It is seen in other disorders. They include:

- Cerebral palsy.
- Stroke.
- Spinal cord injury.

Dystonic hypertonia:

- Muscle resistance to passive stretching. A therapist gently stretches the inactive contracted muscle to a comfortable length. This is done at very low speeds of movement.
- A tendency of a limb to return to a fixed involuntary (and sometimes abnormal) posture after movement.

Rigidity:

- An involuntary stiffening or straightening out of muscles.
- Abnormally increased muscle tone.
- Reduced ability of a muscle to stretch.
- This type of hypertonia is most common in parkinsonism

TREATMENT

- Drugs such as:
  - Baclofen, diazepam, and dantrolene may be prescribed to reduce spasticity.
  - Injections of botulinum toxin have recently been used for longstanding hypertonia in cerebral palsy, spasticity, and other disorders.
- Rehabilitative treatment may involve:
  - Range of motion exercises.

- Active stretching exercises.
- Occupational therapy.

- In severe cases, a surgical procedure may be used. In it, the nerves that cause spasticity are cut.
- Dystonic hypertonia and rigidity can be treated with therapies aimed at the underlying disorders.

WHAT WILL HAPPEN

Hypertonia is sometimes painful. It may lead to:

- Functional limitations.
- Disability.
- In severe cases, reduced quality of life.

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