Peripheral Neuropathy

Peripheral neuropathy is a common disorder of your nerves resulting from damage.

CAUSES

This disorder may be caused by a disease of the nerves or illness. Many neuropathies have well known causes such as:

- Diabetes. This is one of the most common causes.
- Uremia.
- AIDS.
- Nutritional deficiencies.
- Other causes include mechanical pressures. These may be from:
  - Compression.
  - Injury.
  - Contusions or bruises.
  - Fracture or dislocated bones.
  - Pressure involving the nerves close to the surface. Nerves such as the ulnar, or radial can be injured by prolonged use of crutches.

Other injuries may come from:

- Tumor.
- Hemorrhage or bleeding into a nerve.
- Exposure to cold or radiation.
- Certain medicines or toxic substances (rare).
- Vascular or collagen disorders such as:
  - Atherosclerosis.
  - Systemic lupus erythematosus.
  - Scleroderma.
  - Sarcoidosis.
  - Rheumatoid arthritis.
  - Polyarteritis nodosa.
- A large number of cases are of unknown cause.

SYMPTOMS

Common problems include:

- Weakness.
- Numbness.
- Abnormal sensations (*paresthesia*) such as:
  - Burning.
  - Tickling.
  - Pricking.
  - Tingling.
- Pain in the arms, hands, legs and/or feet.

TREATMENT

Therapy for this disorder differs depending on the cause. It may vary from medical treatment with medications or physical therapy among others.

- For example, therapy for this disorder caused by diabetes involves control of the diabetes.
- In cases where a tumor or ruptured disc is the cause, therapy may involve surgery. This would be to remove the tumor or to repair the ruptured disc.
- In entrapment or compression neuropathy, treatment may consist of splinting or surgical decompression of the ulnar or median nerves. A common example of entrapment neuropathy is carpal tunnel syndrome. This has become more common because of the increasing use of computers.
- Peroneal and radial compression neuropathies may require avoidance of pressure.
- Physical therapy and/or splints may be useful in preventing contractures. This is a condition in which shortened muscles around joints cause abnormal and sometimes painful positioning of the joints.

WHAT WILL HAPPEN

Recovery from this disorder is usually slow. Depending on the type of peripheral neuropathy, patients may fully recover without residual effects. Or they may partially recover. They would then have sensory, motor, and blood vessel (*vasomotor*) deficits. If severely affected, the patient may develop chronic muscular atrophy.

RESEARCH BEING DONE

The NINDS supports a broad program of research on disorders of the peripheral nervous system. This includes peripheral neuropathy. Much of this research is aimed at increasing the understanding of it and finding ways to prevent and cure the disorder.

Research is continually being done to learn more about this problem.

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