Post-Polio Syndrome

Post-Polio Syndrome (PPS) is a condition that can strike polio survivors anywhere from 10 to 40 years after their recovery from polio. PPS is caused by the death of individual nerve terminals in the motor units that remain after the initial polio attack. Doctors estimate the incidence of PPS at about 25 percent of the survivor population.

SYMPTOMS

Symptoms include:

- Fatigue.
- Slowly progressive muscle weakness.
- Muscle and joint pain.
- Muscular atrophy.

The severity of PPS depends upon how seriously the survivors were affected by the first polio attack.

DIAGNOSIS

The only way to be sure a person has PPS is through a neurological exam. This is aided by other lab studies. Examples include:

- Magnetic resonance imaging (MRI).
- Neuroimaging.
- Electrophysiological studies.
- Muscle biopsies.
- Spinal fluid analysis.

TREATMENT

At present, no treatment can cure or prevent PPS. Some experimental drug treatments show promise in treating symptoms. These include pyridostigmine and selegiline. Caregivers recommend that polio survivors follow standard healthful lifestyle practices:

- Eat a healthy diet.
- Exercise in moderation.
- Visit a caregiver regularly.

PPS is a slowly progressing condition. It is marked by long periods of stability. PPS patients, compared with control groups, do not show increased antibodies against the polio virus. PPS affects only certain muscle groups. So doctors question whether the polio virus can cause a persistent infection in humans. PPS is not usually life-threatening. But it may be in people with severe respiratory impairment.

RESEARCH BEING DONE

Scientists are studying a number of possible treatments for post-polio syndrome. This includes insulin-like growth factor (IGF-1) and other growth factors. Other researchers are looking at the mechanisms behind fatigue. They are trying to gather information from the:

- Brain.
- Muscles.
- Neuromuscular junction. This is the site at which a nerve cell meets the muscle it helps activate.

Scientists are also trying to determine if there is an immunological link in this disorder.

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

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