ISSN NO: 2770-2936
Date of Publication:30-09-2022

Diseases of the Peripheral Nervous System

Khodjaeva Gulnora Abdubannonovna, assistant
Fergana Public Health Medical Institute
Uzbekistan, Fergana

Abstract: With the rapid development of information technology in the world today, many new symptoms of many diseases are being identified. Especially in this regard, much higher results are being achieved in diseases of the nervous system. This article discusses the most common peripheral nervous system diseases and their types.

Keywords: Nerve diseases, peripheral nervous system, afferent and efferent fibers, somatic nervous system, neurons.

Nervous disorders - diseases of the nervous system. It is caused by a total or partial injury to the central and peripheral nervous system for some reason. Nerve diseases are organic and functional. On the ground of organic nerve diseases lies the anatomical structural changes of the central and peripheral nervous system. It is caused by infectious diseases, intoxication, injuries, tumors, vascular diseases and others. In organic nerve diseases accompanied by damage to various parts of the head or spinal cord, paralysis, convulsions, hyperkinesis, reflexes are observed in the peripheral nervous system, impaired sensitivity, pain and other sensations. Functional nerve diseases do not have pronounced anatomical changes in the nervous system, this includes neuroses. Hereditary diseases of the nervous system (myopathy, myotonia, etc.) form a separate group. The science of neurology and neuropathology studies nerve diseases. From Nervous Diseases, neuroses, stroke, encephalitis, meningitis, polio, neuritis, radiculitis, epilepsy and other occur.

The peripheral nervous system (SNP) is a division of the nervous system that is represented by all the nerves that do not enter the brain or spine, that is, they do not belong to the central nervous system.

Our nervous system is also divided into two, like most vertebrates: the central nervous system and the peripheral nervous system, both of which are closely related

The functions of the peripheral nervous system are carried out by its three divisions:

It is responsible for sending sensory information from the body to the brain using afferent fibers. For example, when touching something cold, the stimulus reaches the central nervous system, processing information and feeling cold.

The somatic nervous system is also responsible for sending messages from the brain to the muscles using efferent fibers. We can say that this system we control our voluntary actions, such as walking, running, smiling, talking, etc.

This system has two main types of neurons:

* motor neurons provide information on when to contract or relax skeletal muscles to perform voluntary movements.

* sensory neurons are responsible for "working out" sensations, delivering information about what we see, hear, smell, catch and taste to the brain. In addition, they are responsible for keeping the central nervous system aware of the homeostatic state of other organs.

Vegetative nervous system. The word "autonomous" or "autonomous" is used to refer to the "self-control" of this part of the system, since we cannot control the functions of our body controlled by this part of the peripheral nervous system.

The autonomic nervous system controls all the "automatic" processes of our body, that is, those that we perform for 24 hours, which are necessary for life, but which we cannot consciously control, such as:

* Breathing.
* Maintaining heart rate.
* Digestion.
* Maintaining internal temperature.
* Maintaining homeostasis of internal organs.

The autonomic nervous system is divided into the sympathetic and parasympathetic nervous systems:

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• the sympathetic nervous system is what helps us prepare for emergencies such as lack of water, physical damage or extreme temperatures.

• the parasympathetic nervous system is responsible for providing body functions with minimal energy expenditure.

The peripheral nervous system consists mainly of nerves, ganglia and nerve plexuses that do not enter the central nervous system (brain and spine):

Nerves are a set of nerve fibers and they, in turn, are bundles or groups of axons of many neurons. We can say that nerves represent the "electrical wires" of our body that connect it to a power source located in the central nervous system of our body.

The "wires" or nerves in the peripheral nervous system that send and transmit messages to the brain can be as follows.

• cranial nerve, which connects the brain directly to structures in the head such as the eyes, ears and face. We have 12 cranial nerves that connect the brain with the organs and muscles of our head, that is, the eyes, ears, nose, mouth, etc.

• spinal nerves, which exit the spinal cord and connect with other organs. Our body has 31 pairs of these, each linked to a region of the body; they are groups of sensory and motor fibers that originate from the spinal cord.

• vegetative nerves include the smooth muscles of blood vessels and motor nerves connected to the digestive system, as well as the heart muscle. As their name suggests, they are part of an autonomous unit, that is, we do not know.

These nerves are very important transporters or conductors that can carry sensory or motor information.

Ganglia are groups of the body of neuronal cells that form organs with the same spherical appearance, closed or containing a capsule.

The peripheral nervous system consists of nerve plexuses, which are networks of spinal nerves in addition to nerves. There are 4 and they are called cervical plexus, branch plexus, lumbar plexus and sacral plexus.

Nerve plexuses are networks of nerve fibers that are usually made up of various interconnected nerve branches that originate in the spinal cord.

Insomnia, and weakness, are the most common causes that people visit in neurology. The first stage is usually used to determine whether or not it is present in the central nervous system (brain and spinal cord). If this is not the case, this problem can live with nerves that extend to the body.

The peripheral nervous system covers all the nerves between our spinal cord, muscles, organs and skin.

A deep understanding of the peripheral nervous system is one of the most distinguishing features among neurologists and other medical practitioners.

There are different nerve cells, each of which provides moderate information to the brain during processes called axons. In addition, some of these axons are wrapped in a protective layer called myalin, which can accelerate the electrical transmission of messages across the Axon. Motor neurons, for example, have dilated, myelinated axons that extend from the spinal cord to various muscles to control their migration.

Sensory neurons fall into different categories. Large myelin axons provide information about vibration, light touch and our senses in space (proprioception) in our body. Thin myelin fibers send information about acute pain and cold temperatures. Small and non-mimnellated fibers convey messages of pain, feeling of heat, or itching.

In addition to motor and sensory axons, the peripheral nervous system also includes autonomic nerve fibers. The autonomic nervous system is responsible for managing very important daily tasks that go beyond our cruel examination, such as blood pressure, heart rate and sweating

The peripheral nervous system is more susceptible to various conditions, since it is not protected by bones, like the central nervous system, which is located in the bony spaces that we call the "skull" and the "spine column".

Most of these peripheral nervous systems are known as peripheral neuropathies and are the result of damage to peripheral nerves.

Symptoms vary greatly depending on the type of peripheral nerve affected, but usually include drowsiness, severe pain, hypersensitivity, and weakness in the extremities and other areas of the body.

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They can also manifest as lack of coordination and paralysis (somatic nervous system), digestive problems, bladder and heart pressure (when affecting the peripheral autonomic nervous system).

Main causes of peripheral neuropathies:

* Trauma
* Infectious diseases
* Metabolism problems
* Hereditary conditions or disorders
* Exposure to toxins
* Autoimmune diseases
* Tumors
* Diabetes
* Bone marrow condition

Diseases of the peripheral nervous system are common in all regions of our republic. We are witnessing this a lot in practice processes. Especially after COVID-19, the clinics of this disease are again accompanied by additional symptoms.

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