

# DIAGNOSIS OF THE ORIGIN OF CERVICAL RADICULOPATHY AND MODERN CLINICAL DIAGNOSTIC METHODS

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**Abstract:** Cervical radiculopathy is a syndrome caused by compression or irritation of the nerve roots in this area. It is manifested not only by severe pain, but also by a decrease in the tone of the muscles of the upper extremities, impaired function. If treatment is started in a timely manner, the prognosis is favorable, but therapy can last for many months.

**Key words**: Cervical radiculopathy of the spine, Causes of the disease, hernias and tumors;, osteophyte formation;, spondylosis.

A bony growth that often irritates the nerve roots. Radiculopathy can develop for the following reasons:

- a. fracture;
- b. dislocation;
- c. scoliosis of the cervical spine.
- d. Predisposing factors include:
- e. hypothermia of the body;
- f. infectious diseases;
- g. Myositis.

## Causes of cervical spine radiculopathy

Pain syndrome can occur when sitting in an uncomfortable position for a long time, for example, when working at a computer.

The risk group includes teachers, tailors, watchmakers, and programmers.

Clinical presentation of the disease

The main symptom of cervical radiculitis is pain, which is aggravated by movement. It may be accompanied by:

- a) Dizziness and headache with cervical radiculopathy, weakness of the muscles of the upper limbs;
- b) feeling of stiffness in the neck;
- c) headache;
- d) decreased mobility of this part of the spine;
- e) paresthesia;

#### f) Dizziness.

In the acute phase of the pathological process, the temperature may rise. There are problems with memory and attention, increased fatigue, and nausea. There are 8 pairs of nerve nodes in the cervical region, which, like the vertebrae, are designated by the letter C. The last pair is located between C7 (lower cervical vertebra) and T1 (upper thoracic). Damage to this area is characterized by pain in the hands, numbness of the fingers, weakness of the inner part of the wrist and the flexor muscles of the hand.

# Nerve roots of the cervical spine

C7 nerve radiculopathy is the most common form of the disease. The pain radiates along the outer side of the wrist. Numbness affects the middle and index fingers. A decrease in the tone of the extensors of the hand is detected. Often the functions of the biceps muscle are impaired. Radiculopathy of the C5 C6 region is characterized by pain in the shoulder area, radiating to the outer side of the wrist, and a decrease in the sensitivity of the thumbs. The tone of the biceps and triceps muscles decreases, reflexes are lost. Damage to the C4 nerve ending is diagnosed very rarely. In this case, pain in the forearms and weakness of the deltoid muscles appear.

Cervical radiculitis can occur in acute or chronic form. In the first case, unpleasant sensations are observed within 14 days. With proper treatment, a person gets rid of them once and for all. If the pain returns, the diagnosis is chronic radiculopathy.

## Pain distribution in cervical radiculopathy

To diagnose the disease, the doctor analyzes the patient's symptoms, conducts an examination and prescribes all the necessary tests. With the help of X-rays, the causes of the syndrome are determined: osteochondrosis, tumors, spinal injuries. CT involves a layer-by-layer study of the tissues of the cervical region, which allows you to assess the degree of pathological changes in the nerve endings. MRI is the most informative method of hardware diagnostics. However, it cannot be used in the following cases:

- a) endoprostheses;
- b) pacemaker;
- c) Metal implants.

Electromyography is a diagnostic test for muscle function using electrical stimulation. When nerve endings are compressed, the tissue does not contract. In addition, a general blood test is prescribed to detect the inflammatory process.

## How to get rid of cervical radiculopathy?

Treatment of this pathological condition requires a comprehensive approach. It should begin with eliminating the cause of the pain syndrome. The course of conservative therapy includes:

- a) taking medications;
- b) conducting physiotherapeutic procedures;
- c) massage;
- d) Performing special exercises.

Drug treatment of cervical radiculopathyDrug treatment begins after the final diagnosis is made. Antiinflammatory, analgesic and sedative drugs are used. It is necessary to use drugs that improve blood circulation and help restore damaged nerve endings. In addition, they take antidepressants, vitamins and chondroprotectors. External remedies - pain-relieving gels and ointments containing anti-inflammatory components - help relieve the symptoms of radiculopathy. They are:

- a) improve blood circulation;
- b) elimination of paresthesia;
- c) Restore sensitivity.

After applying the ointment, it is recommended to cover the neck with a warm cloth or do a light massage. This will accelerate the penetration of the drug and increase its effectiveness. Such drugs are not recommended for use in the presence of skin rashes and wounds.

Acupuncture treatment of cervical radiculopathy Acupuncture helps to alleviate the patient's condition during acute radiculopathy. In addition, the use of orthopedic fixation devices is necessary, especially during sleep. With their help, the vertebrae return to their original position, and the compressed nerve roots are released.

# Once the condition improves, the following can be used:

- a) magnetic therapy;
- b) postisometric relaxation;
- c) electrophoresis;
- d) Special gymnastics.

During the treatment period, it is recommended to follow a special diet. You need to eat 4-5 times a day in small portions. Fatty and fried foods, spicy and smoked foods, alcohol should be excluded from the diet. Preference should be given to lean meat, boiled vegetables, fermented milk products and cereals.

Following a special diet will not only eliminate excess weight, but also help to overcome the negative effects of taking medications on the digestive system.

If symptoms persist for a year, the doctor may decide on the need for surgical intervention aimed at releasing the compressed nerve endings:

Laminectomy is the removal of a small portion of the vertebra, an intervertebral disc, or a bone spur.

A discectomy is the removal of a piece of cartilage that is compressing the disc. The fixed segment is formed by 2 vertebrae.

#### **Discectomy**

Prevention of cervical radiculopathy includes:

Timely treatment of inflammatory diseases;

Proper nutrition;

Choosing an orthopedic pillow and mattress.

The latter should have a moderate level of rigidity. Pain syndrome is often caused by hypothermia, so it is necessary to dress for the weather and wear warm scarves. When working in a sitting position for a long time, you should take breaks, during which you will perform special exercises. Daily walks and exercises on the horizontal bar are useful, helping to increase the distance between the vertebrae. Therapeutic massage improves muscle tone and restores blood circulation.

Treatment for radiculopathy should begin as soon as the first symptoms appear.

Under the influence of medications, pain and paresthesia quickly disappear. Without therapy, neurological disorders become permanent, muscle weakness turns into paralysis - the inability to move.

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