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# COGNITIVE NEUROSCIENCE AND PSYCHOLOGY

# LEKOPLAKIA DISEASE ORIGIN, CLINIC, TREATMENT AND PREVENTION

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**Abstract**: Leukoplakia is a disease characterized by keratinization of the surface epithelium of mucous membranes. It is a pre-cancerous condition and therefore requires close attention and immediate treatment. Leukoplakia is the surface of epithelial cells in which the process of removing old tissue is disturbed. Keratinized tissue remains in place, so a white multi-layered island is formed. Over time, this leads to many diseases in the body.

**Key words:** Leukoplakia, types, Leukoplakia causes, Oral leukoplakia

# Types of leukoplakia

**There are several types of leukoplakia.** Each of them is different in its course, so it requires a different approach to treatment. A specific thing can be determined only after a diagnostic test. The following forms of leukoplakia are distinguished:

**Flat**. The most common variety found mainly in the oral cavity. It does not cause any discomfort for a long time and is detected during a preventive dental examination. Over time, the patient begins to complain of burning, pulling back and other discomforts in the affected area. Flat leukoplakia looks like a dry, rough area that forms near the salivary glands. The color of plaque is usually milky, gray;

**Verrucous**. It often develops against the background of flat leukoplakia if there is no timely treatment. The focus of the peeling becomes clearer, the tumor rises 3-5 millimeters above the skin. The patient complains of burning sensation, pulling sensation and pain. This form is prone to cancer development;

**Erosive**. This form is often the result of verrucosis. Many wounds and cracks appear in the keratinized area, which causes severe pain. The damage is constantly increasing and bleeding. An open wound is a gateway to infection;

**Tappeiner's leukopenia.** A special form diagnosed in smokers. The most affected areas are the palate and gums. Due to the narrowing of the salivary ducts, the mucous membrane has a gray, bluish color, secretions accumulate in the tissues. This increases the likelihood of inflammatory processes;

Soft. Benign form of leukopenia. It is characterized by severe peeling, cracks and ulcer formation. The tumor reaches 5 cm in diameter and rises above the skin.

Types of leukoplakia-1

Types of leukoplakia-2

The main manifestations of leukoplakia

Symptoms of leukoplakia are diverse: the manifestation of the disease depends on its form and the location of the affected area. Often it occurs without negative symptoms, but when complications appear, the patient begins to feel discomfort.

# Bladder and urinary tract leukoplakia

For a long time, leukoplakia of the bladder does not manifest itself in any way. Patients rarely complain of discomfort in the lower abdomen during urination. Over time, symptoms such as weakness, fatigue and a constant urge to go to the toilet appear. The process of urination is disturbed: the flow is weak, intermittent, and the person cannot empty the bladder completely. In advanced stages, the patient complains of severe burning pain during urination, and there may be drops of blood in the urine.

# Oral leukoplakia

The oral cavity is the main site for leukoplakia. Initially, a gray coating forms on the tongue or nearby mucous membranes. Later, folds and brown spots appear in the oral cavity. If there is no timely treatment, the gum surface will turn gray and the inflammatory process will develop. Over time, such areas become injured and begin to bleed.

# Leukoplakia of the throat and esophagus

This form of leukoplakia occurs mainly in patients who smoke and drink alcohol. For a long time, the pathology does not manifest itself with any symptoms. Over time, a person begins to complain of a sore throat, he cannot eat cold and hot food. The discomfort remains constant, and the patient begins to cough up blood due to the sores.

# Leukoplakia of the vulva

Leukoplakia of the vulva is a pathology that affects women during menopause. This is a dystrophic disease that occurs as hyperplasia of stratified squamous epithelium. Leukoplakia of the vulva can be detected by constant itching nearby, which is aggravated by urination or any movement. Also, leukoplakia of the vulva is often accompanied by the formation of many polyps. They are damaged and bleed, causing severe pain to the patient.

#### Cervical leukoplakia

For a long time, cervical leukoplakia does not show any symptoms. Often, the pathology can be detected only during a regular examination by a doctor. Women may complain of specific smelly discharge, pain during intercourse, itching and burning, discharge of ichor. When examining the cervix, the doctor can detect leukoplakia with visible plaques with clear borders.

### Causes of leukoplakia

Doctors still could not determine the exact causes of leukoplakia. Many experts emphasize the cause-and-effect relationship and believe that the disease develops as a result of a long-term inflammatory process. Among the main causes, doctors identify long-term damage. It can be:

**Mechanic**. This includes wearing dentures, damage to the teeth, prolapse of genital organs with prolapse; Chemical This is smoking, frequent drinking of alcohol, constant use of vaginal gel and suppositories, chewing nuts and nos;

Physical. Eating hot foods and drinks, spicy foods;

Operating room. Due to the formation of scars in the tissues, their trophism changes. It occurs due to gynecological interventions, minimally invasive operations in the larynx or oral cavity.

Other predisposing factors can also contribute to the development of leukoplakia. Among them:

hormonal disorders due to hormonal imbalance, mucous membranes become more vulnerable; human papillomavirus, infection of the body with Candida fungi; common infectious process - tuberculosis or syphilis;

decreased immunity due to various diseases, natural aging, HIV / AIDS; metabolic diseases, diabetes mellitus, obesity, thyroid gland pathologies.

Genetic predisposition can also contribute to the development of leukoplakia. It has been proven that some people have lost the genes that control the process of keratinization of cells. Therefore, if your relatives have leukoplakia, you should be careful about your health.

## **Diagnostic methods**

Leukoplakia is a benign disease. However, it can occur with dysplasia, which is stage 0 cancer. The normal form of leukoplakia turns into a malignant form in 5% of cases. At the first visit to the doctor, the specialist examines the patient and collects anamnesis. Additional diagnostics include the following activities:

general and bacterial urine analysis; urine sample according to Nechiporenko; urine analysis for atypical cells; general and biochemical blood test; immunological blood test; Smear for STI;

Ultrasound examination of the bladder and pelvic organs;

biopsy of altered tissue;

histological examination of mucous surfaces;

cytological examination (allows to determine the oncological process).

# What are the risks of leukoplakia?

Doctors distinguish 2 forms of leukoplakia: simple and proliferative. In the first case, the basal layer is not involved, in the second, there is a tendency for rapid growth. This is a proliferative form and is very dangerous. It is aggressive and prone to cancer.

According to WHO statistics, more than 30% of leukoplakia become malignant within a few years. In most cases, the disease does not manifest itself with any clinical symptoms - cancer can be detected only during a diagnostic examination of the whole body. Therefore, everyone should visit a doctor at least once a year. By detecting leukoplakia in the early stages, it is possible to reduce the risk of fatal complications.

#### **Basic treatment methods**

The choice of treatment method for leukoplakia depends on the form of the pathology. A patient with flat disease is under constant medical supervision: he must be examined by a doctor every few months, which shows the level of development of the disease. Appropriate treatment is indicated in the presence of inflammatory processes and endocrine abnormalities.

Ointments with estrogen should be used for leukoplakia of the vulva, which will help stop the spread of the pathological process. If there are signs of basal cell hyperactivity or cell atypia, the affected tissue should be completely excised. Hardware techniques are used for this:

Electrocoagulation. Exposure to areas of altered tissue with electric current;

Chemical coagulation. Removal of cells modified by chemical compounds;

Cryodestruction. Exposure to leukoplakia with cold;

Laser therapy. Burn damaged tissues with laser rays;

Radio wave therapy. Burn wounds with high frequency radio waves. This is the most modern and effective

way to treat leukoplakia.

Excision or conization is indicated for cervical leukoplakia. Polyps can also appear - benign hyperplastic degeneration of the mucous membrane. They should also be removed in time, because with any damage they bleed. There is a risk of their malignant degeneration.

Leukoplakia of the bladder in the early stages requires regular courses of antibiotics directly in the organ cavity. Radical removal of the affected tissue shows high efficiency. In the case of pathology of the oral cavity, anti-inflammatory therapy is carried out, followed by surgical intervention.

# **Prognosis and prevention**

If leukoplakia is detected in the early stages, the prognosis of the disease is favorable. Complex therapy helps to stop the development of the disease and prevent the development of any complications. Advanced forms of pathology are prone to the development of cancer, which means a significant reduction in the duration and quality of life. To prevent the appearance of leukoplakia, you should keep in mind the following recommendations:

avoiding stressful situations and overwork;

renouncing promiscuity;

quit smoking, reduce the amount of alcohol in your life;

Have regular checkups with your doctor;

do not prescribe medicines yourself;

do not allow damage to mucous tissues;

Timely treatment of any disease.

Leukoplakia is a disease that requires constant medical supervision. With timely treatment, you can prevent complications and maintain a normal life expectancy. You can contact the "Medscan" medical center, where you will undergo a comprehensive diagnosis and an individual treatment regimen will be developed based on the results.

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