



DESCRIPTION OF THE RESEARCH MATERIAL AND RESEARCH METHODS USED IN THE STUDY OF PERIODONTITIS IN THE MILITARY.

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Abstract. In this article, the leading etiological factor of periodontitis is the microflora of dental plaque (plaque microflora) formed on the pellicle of the tooth in the area of the dentoalveolar groove. The pathogenic effect of microflora may manifest itself due to its excessive accumulation in plaque or with a change in the composition of microflora. In these cases, gram-negative microorganisms, fusobacteria and spirochetes mainly appear.

Keywords: periodontal tissues, collagenase, elastase, fibrinolysin, chondroitin sulfatase, microcirculation, odontogenic focus.

Periodontitis is an inflammatory gum disease in which tissue atrophy occurs, including bone, which holds the tooth in its tooth socket. This is an insidious disease: its symptoms may not have acute toothache, and the disease in its advanced form can lead to dangerous complications, up to general intoxication of the body. Therefore, it is very important to start fighting periodontitis as early as possible. The causes of periodontitis may be local and general factors that lead first to the appearance of gingivitis (inflammation of the gums), and then to the spread of inflammation to the underlying tissues and their destruction.

The leading etiological factor of periodontitis is the microflora of dental plaque (plaque microflora), which forms on the pellicle of the tooth in the area of the dentoalveolar groove. The pathogenic effect of microflora may manifest itself due to its excessive accumulation in plaque or with a change in the composition of microflora. In these cases, gram-negative microorganisms, fusobacteria and spirochetes mainly appear.

The following factors predispose to the development of periodontitis: • congenital features of the periodontal structure — thin gum biotype, shallow vestibule, insufficient bone thickness; Features of the periodontal structure • bad habits and common diseases — smoking, chronic emotional stress, diabetes mellitus, urolithiasis or peptic ulcer; • decrease in saliva production due to taking certain medications; • tartar — occurs as a result of the accumulation of plaque in the recesses, which causes difficulty in self-cleaning the gingival canal and maintaining the inflammatory process in it;

-traumatic bite (and its combination with plaque is a more destructive factor than the presence of only one of them); • deep or open bite — the development of periodontitis with malocclusion occurs in 36% of children aged 11-13 years; • crowded (crooked) teeth — gum inflammation with crowded front teeth is observed in 65% of children of the same age; • overhanging, unpolished or porous surfaces of fillings and prostheses — contribute to plaque accumulation due to poor hygiene of this area; • breathing through the mouth, drying out the gum surface;

• the pressure of the tongue with its atypical articulation displaces the teeth (more often the front ones), making them mobile, which not only contributes to the occurrence of periodontitis, but also complicates its course; • gnashing of teeth (bruxism) — injures the

periodontal structure and disrupts blood supply in the microcirculatory bed; • violation of the composition and properties of saliva — viscosity and a decrease in its amount or rate of excretion. If you find similar symptoms, consult a doctor. Do not self-medicate - it is dangerous for your health! Symptoms of periodontitis The symptoms of periodontitis may vary depending on the duration and severity of the inflammatory process. The more severe the condition, the more pronounced the signs of the disease. For the first few months, periodontitis causes almost no discomfort.

Usually the patient is disturbed: • constant or periodic bleeding of the gums; • bad breath; • increasing the distance between teeth; • pain when food gets into the gaps between the teeth; • feeling of discomfort while chewing; • itchy gums; • feeling of loosening teeth; • swelling, redness, soreness of the gums; • dental deposits in large quantities.

Symptoms of periodontitis To cure periodontitis, to find out the causes of the disease is possible only in a dental clinic. In order to do this as quickly and easily as possible (including from a financial point of view), it is worth being conscious, that is, when the first symptoms of the disease appear, contact a periodontist. Common diseases of the body reduce the barrier and protective functions of periodontal tissues, as a result, resistance to pathogenic microbes is greatly reduced. The most important of them are: viral diseases, herpes, diabetes mellitus, leukemia, beriberi, peptic ulcer of the stomach and duodenum, skin diseases, urolithiasis, the use of certain medications, stress.

The effect of stress: scientific experiments have proven that severe constant stress causes pathological mechanisms in periodontal tissues. Psychoemotional trauma affects the neuro-endocrine-immune relationship. Hereditary factors of predisposition to periodontitis include functional disorders of neutrophilic granulocytes and monocytes, a decrease in the protective function of the oral fluid, a small thickness of the alveolar bone and a thin mucous membrane of the gum. Smoking is a common risk factor for the occurrence and development of periodontitis. Tobacco smoke contains more than 2,000 potentially toxic substances for oral tissues. Smokers form tartar and plaque more actively, thus creating good conditions for the reproduction of bacteria. In addition, nicotine affects the vascular bed of the gums, impairing microcirculation.

Impaired function of the genital glands: excessive amounts of estrogen and progesterone in the blood increase the permeability of periodontal vessels and the sensitivity of the gums to the effects of microorganisms. Classification and stages of periodontitis development According to the severity of the disease, there are three degrees of periodontitis: • mild — periodic bleeding, periodontal pockets of no more than 4 mm, practically no bone changes are visible on radiographs; • medium — bleeding gums, pockets from 4 to 6 mm, root exposure is present; • severe — pocket depth of more than 6 mm, gum soreness, difficulty chewing, the appearance of gaps between teeth, tooth mobility.

Three degrees of periodontitis The course of the disease can be divided into four stages:

- acute periodontitis;
- chronic periodontitis;
- exacerbation (including abscess formation) — occurs against the background of deterioration of the general condition, swelling, redness and soreness of the gums appear, purulent exudate is released from the pockets;
- remission — there are no complaints, the gum is pale pink, fits snugly to the teeth, there are no foci of inflammation, the roots of the teeth are exposed, clinical pockets are not detected.

The prevalence of periodontitis is: localized — the lesion occurs in the area of several teeth, more often due to overhanging edges of fillings and crowns, as well as crowding of teeth. generalized — gum lesion in the area of all teeth, more often it occurs due to poor oral hygiene.

Complications of periodontitis

- The main consequence of untimely diagnosed periodontitis is secondary adentia, that is, tooth loss and, accordingly, a decrease in the volume of bone tissue in the area of affected teeth. Subsequently, this may lead to the inability to perform implantation and provide the patient with a non-removable prosthesis. Secondary adentia But complications due to extensive infection can also cause the appearance and development of various diseases and problems.
- Rheumatoid arthritis. It was revealed that patients with periodontitis are 2 times more likely to develop rheumatoid arthritis. It has been established that bacteria associated with inflammatory processes of the gums are found in 50% of people suffering from rheumatoid arthritis. If the gum is affected, such a side effect as joint swelling may occur.
- Myocardial infarction or stroke. It has been proven that pathogen bacteria that cause inflammation in the gums are also involved in thrombosis, which can lead to such severe complications and consequences.

- Atherosclerosis. The waste products of pathogenic bacteria and inflammatory cytokines and chemokines change the susceptibility of the surface receptors of endothelial cells in blood vessels, which leads to pronounced sedimentation of molecules, followed by apoptosis destruction of vascular endothelial cells.
- Extensive sepsis. If the patient has a weakened immune system, then the infection accumulating in the periodontium can spread through the blood and lead to infection of the body.
- Diseases of the respiratory system — pulmonary emphysema, bronchitis, pneumonia. Periodontitis is dangerous for pregnant women: an infection that is located in the oral cavity provokes the release of special active substances that can lead to inflammation of the uterus, which increases the risk of premature birth.

Diagnosis of periodontitis In the diagnosis of periodontitis, clinical data and duration of the disease are of great importance.

When examining a patient with periodontitis, the doctor pays attention to the quantity and quality of dental deposits, the condition of the gums, the depth of the vestibule of the mouth, occlusion, the condition of the frenules of the tongue and lips, tooth mobility, the presence and depth of periodontal pockets. During the initial examination, a Schiller — Pisarev sample is performed, the hygiene index and periodontal indices are determined, and a special periodontal chart is compiled. In this map, periodontal pockets are indicated, their depth and width are recorded.

The map describes what dental deposits, mobility and bleeding each tooth has. There is a denudation of the roots of the teeth. The periodontal chart is re-filled after the course of treatment, then it is done annually to track the course of the disease. In periodontitis, the study of scraping from the gingival pocket by PCR, chemiluminescence of saliva and back-

seeding of the separated gingival pockets are used. Additional examinations may include a biochemical blood test for glucose and C-reactive protein, as well as the determination of serum antibodies IgA, IgM and IgG.

Additional examinations may include a biochemical blood test for glucose and C-reactive protein, as well as the determination of serum antibodies IgA, IgM and IgG. In order to determine the severity of periodontitis, orthopantomography is performed — a snapshot of the complete upper and lower jaw and temporomandibular joint. This method is less informative, it is used mostly for joint examination. Computed tomography is the most accurate diagnostic method, it eliminates errors in the diagnosis of periodontitis, since a tomogram makes it possible to accurately determine the type of bone pockets and measure their prevalence, width and depth.

According to CT, the periodontist evaluates the condition of bone tissue in different planes, which cannot be done with the help of film images. Therefore, the doctor will correctly determine the stage of the disease and competently plan treatment. Targeted intraoral radiography allows you to examine the periapical tissues and the interalveolar bone in the area of 1-2 teeth. If there is a concomitant pathology, the doctor may refer the patient for consultation with other specialists — a therapist, endocrinologist, gastroenterologist, hematologist, immunologist or rheumatologist.

At any stage of the disease, treatment begins with the removal of dental deposits, microbial biofilm, soft plaque and tartar. The tartar is removed by ultrasound, the subgingival stone is eliminated with special cures. The soft and pigmented plaque is removed with the Air Flow device — it allows you to return the enamel to its natural shade. Further, all surfaces of each tooth are polished and sanded with special pastes and brushes. The procedure ends with antiseptic treatment of the gums and applications of anti-inflammatory balms. Anti-inflammatory therapy is performed after professional oral hygiene and before other therapeutic manipulations (for example, curettage of dental pockets, vestibuloplasty). The mild stage of periodontitis begins to be treated with local antiseptics (in the form of gels, ointments, mouthwash solutions), in more severe cases — antibiotics, antifungal agents and hormonal drugs.

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