

## Prediction of the Course of Chronic Generalized Periodontitis

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**Abstract:** Periodontal diseases, as well as dental caries, are very common. According to the WHO, about 95% of the world's adult population and 80% of children have some form of periodontal disease. The periodontium is a tissue complex that surrounds the tooth and secures it to the jaw bones. This complex includes the gums, the periodontal ligament connecting the tooth root with the bone socket, the bone tissue of the alveolar processes and the cementum of the tooth root. With various periodontal diseases, the pathological process can involve any part of the periodontal complex or the entire periodontium. The nature of the pathological process can also be different: dystrophic, inflammatory or tumor.

**Key words:** Periodontal diseases, dental caries, gingivitis.

Among all periodontal diseases, 90-95% are inflammatory, such as gingivitis and periodontitis. Therefore, we will dwell on them in more detail.

Gingivitis is an inflammatory process in the tissues at the edge of the gums, in which only the surface tissues of the gums are affected.

Periodontitis is an inflammatory process involving all periodontal structures. It is characterized by the destruction of the periodontal connection and the progressive destruction of the alveolar processes of the jawbones.

In fact, gingivitis and periodontitis are two related forms of the disease, because the inflammatory process first occurs in the gum tissue, and gradually the underlying periodontal structures: periodontal ligament and alveolar bone are involved.

Currently, the main local pathogenetic factors of inflammatory periodontal diseases have been identified. This is the accumulation of dental plaque (microbial factor), damage to the structure of the vestibule of the oral cavity, dental anomalies and supercontacts.

The inflammatory process in the gum tissue is initially caused by a large accumulation of microbes and the enzymes and toxins they release. Although the inflammation is limited to the gums and the underlying tissues are not affected, we deal with gingivitis, which occurs with periods of exacerbation and remission in different patients with different levels of activity.

The difference in the nature of the course of gingivitis is determined by the state of general defense mechanisms in patients. Therefore, with the absolute recognition of the microbial factor as the causative factor, the "interest" of the whole organism in the development and progress of this purely local process can never be doubted.

Often these are complaints of bleeding gums.

Bleeding during tooth brushing is noted by almost all patients with gingivitis. There may also be complaints of pain and bleeding gums during meals. The general condition, with rare exceptions, does not break.

When examining patients, as a rule, a large amount of soft dental plaque is detected, especially in the neck of the teeth. The gingival margin is usually hyperemic, swollen, and the gingiva bleeds easily on examination.

Since only the superficial tissue is inflamed with gingivitis, it is easily accessible for vision and targeted therapeutic interventions, the treatment of this disease is very effective.

The main method of treatment and prevention of gingivitis is the removal of microbial accumulations, that is, hygienic measures.

Hygiene products - pastes and toothbrushes - are the main weapons against inflammatory periodontal diseases. In addition, they are equally effective against periodontal inflammation and against caries, since the microbial factor is the main factor in both cases.

However, despite the availability of such an effective and inexpensive preventive and therapeutic tool, the problem of inflammatory periodontal diseases remains very urgent. Already in childhood, in 30-80% of cases, the initial stage of the disease is diagnosed in the form of superficial inflammation - gingivitis, its course is characterized by alternating periods of strong inflammatory reaction and a relatively favorable periodontal condition. With age, the intensity and spread of the inflammatory reaction in the periodontium increases: destructive changes in periodontitis are observed in 2-6% of cases in adolescents with gingivitis. Later, the frequency of superficial inflammatory changes manifested in the form of gingivitis decreases, and the prevalence of deeper destructive events in periodontitis of various degrees of severity increases significantly.

The problem of adequate hygienic care of the oral cavity and instilling the necessary hygienic skills in children is very difficult. Today, the domestic market offers very high-quality hygiene products (pastes and brushes). The question is different: to achieve the necessary cleaning of the teeth and gums, it is necessary to brush at least 20 times on one surface of the tooth, the total time of cleaning the teeth - from the outside and inside - should be at least three minutes, otherwise the microbial plaque will remain. In addition, interdental spaces should be treated with floss (dental floss). It should be taught from a very early age to form the need for children to brush their teeth in this way at least twice a day.

Until the child is constantly motivated for this type of care, it is difficult to expect significant results regarding the condition of the gums and teeth. It should be remembered that the quality of teeth cleaning largely depends on individual hand skills. Many children, no matter how hard they try, cannot brush their teeth properly, even if they try very hard. The above applies directly to children with general developmental disorders.

What can be the way out of this situation?

The doctor should regularly carry out appropriate treatment or prescribe drugs that effectively suppress the activity of microorganisms and slow down the formation of microbial accumulation. For these purposes, the most effective drug today is chlorhexidine digluconate, which sharply inhibits the vital activity of all microbial accumulations that damage periodontal tissues and hard tooth tissues. In addition, it actively suppresses herpes viruses and fungi and has a weak analgesic effect. The disadvantage of this tool is the constant bitter taste, which limits the use of the drug, especially in children. The drug "Corsodil", which recently appeared on our market, does not have this drawback. Therefore, it is widely used in many countries of the world. Staining of the surfaces of the tongue and fillings - a property of chlorhexidine - is a temporary phenomenon that passes very quickly. But the effect of using chlorhexidine as a therapeutic and preventive agent is very high and stable. Patients use the drug independently, the course of treatment is 5-7 days.

As soon as the inflammation overcomes the main barrier - the periodontal junction, it passes to the underlying tissues - the periodontium and the alveolar bone. A logical continuation of gingivitis, this form takes on completely new features. First, a periodontal pocket is formed, in which the accumulation of microbes reliably hides and is not removed during tooth brushing. Secondly, in the depth of periodontal pockets, the most aggressive types of microbes - anaerobes, spirochetes, actively reproduce, their ability to damage is very high. Thirdly, the microorganisms themselves and their enzymes and toxins easily enter the main structures from the pockets and dissolve them. As a result, the stability of the teeth decreases, they become mobile, and the mechanical load on the teeth during chewing turns out to be traumatic. As a result of this damage, the destruction of the supporting

apparatus of the tooth occurs especially quickly, which in turn contributes to the further spread of microbial accumulation. Forms of periodontitis.

Patients' complaints are usually teeth mobility, bleeding gums, bad breath, fan-shaped inconsistency of the upper front teeth, impact on the neck of the teeth.

In the examination, hyperemia of the gingival margin is noted, often with a cyanotic color, the gums do not adhere tightly to the neck of the teeth;

During probing, depending on the severity of the process, periodontal pockets of different depths are detected. There are supra- and subgingival dental deposits. If the process is severe, purulent discharge from periodontal pockets and significant tooth mobility may occur. X-rays with periodontitis show a decrease in the height of the alveolar process due to the resorption of bone tissue of the interalveolar septa.

Treatment of periodontitis is primarily aimed at removing microbial accumulation, tartar and granulations from periodontal pockets. If the periodontal pockets are deep enough, they can be completely treated only by surgery. And after the operation, the main task is to prevent microbial masses from penetrating deeper into the area. It is already more difficult to achieve this, but the main method of prevention in this case is high-quality controlled oral hygiene, prescribing effective antimicrobial rinses, among which Corsodil is recognized as the most effective today.

There are a number of forms of inflammatory periodontal diseases, which are characterized by increased aggression. Their main difference is the presence of specific microorganisms and their combinations.

Prepubertal periodontitis. The process occurs during childhood and involves the eruption of permanent and even primary teeth. Early development and aggressive course are associated with the presence of general protection - monocytes and polymorphonuclear leukocyte defects in such patients. In such cases, the tactics of experts are boiled down to deepen the fight against microbes. But the result can be achieved only with the efforts of general specialists - if it is possible to eliminate blood cell defects with the help of targeted drugs.

Focal juvenile periodontitis. With this form of periodontitis, selective damage to the supporting apparatus of the first permanent teeth occurs. The disease is caused by *Actinobacillus Actinomycetes comitans* species. In most cases, it occurs in children whose parents are carriers of the microorganism. The process occurs with a minimal inflammatory reaction. Its rapid spread is due to the fact that this type of microorganisms has the ability to suppress the chemotaxis of leukocytes, and in such conditions there is no time for the appearance of antibodies. Therefore, later permanent teeth are rarely damaged, because specific antibodies later have time to form and show their protective effect. Treatment includes active antibiotic therapy - at least 3 weeks - combined with local interventions. The duration and necessity of general antibiotic therapy is due to the fact that microorganisms live not only in the periodontal cavity, and then in the periodontal pocket, but they penetrate deep into the tissues and bone structures, where they are permanently stored.

Rapidly progressive periodontitis, as well as periodontitis resistant to therapeutic interventions, is caused by certain microflora: *Porphyromonas gingivalis* (previously bacteroids), *Actinobacillus Actinomycetes comitans* and *Prevotella intermedia*. Moreover, their combination usually occurs. In this case, these microorganisms show a strong positive synergistic interaction, and the microbial composition not only has a strong destructive effect on tissues, but also suppresses the effect of protective cells. In addition, it is characteristic that these microorganisms penetrate deep into the tissues.

Medical tactics consist of careful mechanical treatment of periodontal pockets and intensive antimicrobial therapy. Topical oral metronidazole or tetracycline is effective. It is recommended to carry out patch operations no later than 3-4 weeks after the start of antimicrobial therapy, otherwise, if the listed microorganisms remain viable, surgical treatment will be ineffective. Corsodil has a good

effect after surgical treatment. Given the relative lack of local response, the most reliable criterion of treatment effectiveness is the microbiological analysis of the contents of periodontal pockets and tissue biopsies. It follows that in some cases it is recommended to treat such patients only in specialized institutions with the necessary conditions. And, of course, no treatment can be effective, especially when it comes to the long-term prognosis, if there is no proper oral care.

One of the diseases based on the degenerative process is periodontal disease. Periodontal disease is an atrophic-dystrophic process in periodontal tissues. This disease has very few symptoms.

What brings patients to the doctor?

This is mainly a cosmetic defect, expressed when the roots of the teeth are open and their clinical crown is enlarged. Patients complain that "the gums recede and the teeth lengthen", which bothers them especially in the frontal region. In some cases, patients are bothered by itching in the gums, as well as pain from the open necks of the teeth.

After the examination, it is often observed that the uniformity of atrophic manifestations in the area of all teeth and the direct involvement of tooth tissue in the process - this is manifested in the presence of wedge-shaped defects. This pathology is characterized by a slow course and relative asymptomatic.

The cause of this pathology is not clear, it is considered as an early development of involutinal processes or a manifestation of general disorders in periodontitis, that is, a syndrome or symptom of general disorders. However, a very clear and well-defined clinical picture makes it possible to distinguish this form of the disease.

There is no adequate treatment for periodontal disease because the cause of the disease has not been identified. The doctor provides only symptomatic treatment - removes the sensitivity of the teeth, prescribes gum massage or automatic massage to correct trophic disorders, and also fills wedge-shaped defects. To meet the wishes of patients, some surgeons perform vestibuloplasty operations. However, this should not be done, because the effect of such interventions is very short-term.

What is really effective is the use of products that eliminate the pain sensitivity of the open necks of the teeth. For this, use fluoride varnish, fluogel and baking soda powder. Currently, Sensodyne paste has appeared on the market, which successfully relieves tooth sensitivity and the patient can use it independently. The doctor should warn patients with this disease not to use a hard brush or make horizontal movements in order not to increase the depth of wedge-shaped defects.

Tumors and tumor-like lesions are among the diseases that are difficult to predict, because they develop only in people who are prone to this process. And the start of the development of the process can be triggered by hormonal changes, in particular, the accumulation of somatotrophic hormone during puberty or pregnancy, the presence of a chronic traumatic factor, and previous inflammation. However, all these are additional risk factors that lead to the development of such lesions in people who are prone to this process.

Treatment and preventive measures include elimination of trauma, inflammation and, if necessary, surgical removal of overgrown tissue (for gingival fibromatosis, hypertrophic gingivitis, epulis, interradicular granuloma). Currently, another serious factor has emerged that encourages the development of this type of pathology: the use of anabolic steroids by young people in bodybuilding and professional strength sports. The doctor's options are very limited here: explanation and advice.

What really leads to a positive outcome in such cases? Maximum hygiene of the oral cavity, use of effective antiseptic and antibacterial rinses by the patients themselves after an active course of treatment.

## List of used literature:

1. AI Grudyanov, doctor of medical sciences, professor, OA Frolova, candidate of medical sciences.
2. Долиев, М. Н., Тулакова, Г. Э., Кадырова, А. М., Юсупов, З. А., & Жалалова, Д. З. (2016). Эффективность комбинированного лечения пациентов с центральной серозной хориоретинопатией. Вестник Башкирского государственного медицинского университета, (2), 64-66.
3. Zukhrudinovna, Z. D. (2022). Modern aspects of neuroprotective treatment in hypertensive retinopathy.
4. Jalalova, D., Raxmonov, X., & Shernazarov, F. (2022). THE ROLE OF C-REACTIVE PROTEIN IN THE PATHOGENESIS OF VISUAL VASCULAR DISEASES IN PATIENTS WITH ARTERIAL HYPERTENSION. *Science and Innovation*, 1(8), 114-121.
5. Jalalova, D., Raxmonov, X., & Shernazarov, F. (2022). SIGNIFICANCE OF ENDOTHELIAL DYSFUNCTION IN THE DEVELOPMENT OF RETINOPATHY IN PATIENTS WITH AH AND WAYS OF ITS CORRECTION. *Science and Innovation*, 1(8), 101-113.
6. Jalalova, D., Axmedov, A., Kuryazov, A., & Shernazarov, F. (2022). COMBINED DENTAL AND EYE PATHOLOGY. *Science and innovation*, 1(8), 91-100.
7. Сагтарова, Х. С., Жалалова, Д. З., & Бектурдиев, Ш. С. (2011). Причины слепоты и слабовидения при сахарном диабете. Академический журнал Западной Сибири, (6), 27-28.
8. Arunachalam, S. (2008). The science race continues in Asia. *Current Science* (00113891), 94(7).
9. Zukhriddinovna, Z. D. (2022). Development of Classification Criteria for Neuroretinal Ischemia in Arterial Hypertension. *Central Asian Journal of Medical and Natural Science*, 3(3), 59-65.
10. Жалалова, Д. З., & Исмоилов, Ж. Ж. (2024). ТЕОРЕТИЧЕСКОЕ ОБОСНОВАНИЕ ИССЛЕДОВАНИЯ ЭНДОТЕЛИНА-1 И Д-ДИМЕРОВ В КРОВИ И СЛЕЗНОЙ ЖИДКОСТИ ПАЦИЕНТОВ С ГИПЕРТОНИЧЕСКОЙ АНГИОРЕТИНОПАТИЕЙ. *AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI*, 3(3), 294-299.
11. Киселева, Т. Н. Ежов, М. В., Аджемян, Н. А., Танковский, В. Э., & Ильина, Н. В. (2016). Особенности регионарного глазного кровотока при артериальной гипертензии I-II степени и субклиническом атеросклерозе. *Российский офтальмологический журнал*, 9(3), 26-33.
12. Жалалова, Д. З., Кадырова, А. М., & Хамракулов, С. Б. (2021). Исходы герпетических кератоуевитов на фоне лечения препаратом «офтальмоферон» в зависимости от иммунного статуса пациентов. междисциплинарный подход по заболеваниям органов головы и шеи, 103.
13. Дроздова, Е. А., & Хохлова, Д. Ю. (2015). Морфометрическая характеристика макулярной зоны у пациентов с окклюзией вен сетчатки по данным оптической когерентной томографии. *Медицинский вестник Башкортостана*, 10(2 (56)), 64-67.
14. Jalalova, D., Axmedov, A., Kuryazov, A., & Shernazarov, F. (2022). СОЧЕТАННАЯ СТОМАТОЛОГИЧЕСКАЯ И ГЛАЗНАЯ ПАТОЛОГИЯ. *Science and innovation*, 1(D8), 91-100.
15. Zhang, S., & Melander, S. (2014). Varicose veins: Diagnosis, management, and treatment. *The Journal for Nurse Practitioners*, 10(6), 417-424.
16. Жалалова, Д. З., & Бабаев, С. А. (2024). РЕЗУЛЬТАТЫ ОЦЕНКИ УРОВНЯ ЭНДОТЕЛИНА-1 И Д-ДИМЕРОВ В СЛЕЗНОЙ ЖИДКОСТИ У ПАЦИЕНТОВ С АРТЕРИАЛЬНОЙ ГИПЕРТЕНЗИЕЙ. *AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI*, 3(3), 300-307.
17. Zukhriddinovna, Z. D. (2022). Development of Classification Criteria for Neuroretinal Ischemia in Arterial Hypertension. *Central Asian Journal of Medical and Natural Science*, 3(3), 59-65.