



OPTIMIZATION OF METHODS OF PREVENTION AND TREATMENT OF INFLAMMATORY PERIODONTAL DISEASES

ABDUKHOLIKOV SAMANDAR KHAMIDULLOYEVICH

*Clinic Resident of the Department of Orthopedic Dentistry
Samarkand State Medical University Samarkand, Uzbekistan.*

Periodontal is a complex of tissues that surround the tooth and ensure its fixation in the jawbones. This complex includes the gum, the periodontal ligament connecting the tooth root to the bone socket, the alveolar processes of the jawbones and the cement of the tooth root. In certain diseases, both individual periodontal tissues and their entire complex can be affected.

Periodontal diseases include gum disease
(gingivitis), periodontitis, and periodontal disease.

Gingivitis (inflammation of the gums) and periodontitis (inflammation of the entire periodontium) are two interrelated forms of the disease, since the inflammatory process occurs first in the gum tissues, and gradually the rest of the periodontal structures are involved in it.

Periodontal disease is a dystrophic process in periodontal tissues, the cause of which is currently unknown. The disease develops slowly and is manifested, first of all, by exposing the roots of the teeth.



In gingivitis, the inflammatory process is localized only in the soft tissues of the gums and is not accompanied by changes in the bone tissue of the jaws. Gingivitis most often develops in young people. It is characterized by redness and swelling of the gingival papillae and gingival margin, its thinning or, conversely, the proliferation of interdental papillae. Patients complain of bleeding and sore gums when brushing their teeth and while eating. If left untreated, this form can develop into a more severe form of gingivitis: areas of ulceration of the oral mucosa appear, covered with a gray necrotic plaque, and bad breath appears.

Periodontitis is a chronic, long—term inflammatory process in the periodontium (lasts for years).

In periodontitis, the entire complex of periodontal tissues is affected by the pathological process, and gingivitis is one of the symptoms of this disease. In



periodontitis, unlike gingivitis, the X-ray shows the destruction of the bone tissue of the jaws.

Periodontitis begins, as a rule, imperceptibly: bleeding gums appear when brushing teeth, short-term ("volatile") pain in the gums, sometimes a feeling of itching and burning in them. If treatment is not started during this period, the disease progresses: inflammatory phenomena in the soft tissues increase, the process of resorption of the bone tissue of the jaws increases, pathological gingival pockets appear — slit-like spaces between the teeth and the jaw bone, usually filled with pus. Gum bleeding increases: blood flows not only when brushing teeth, but also during meals, and also for no apparent reason. Bad breath appears; due to the progressive loosening of the teeth, the process of chewing food becomes difficult, and tooth mobility leads to tooth loss.

Against the background of a long-term inflammatory process, an extensive focus of chronic infection forms in the periodontium with a weakening of the body's defenses. As a result, the general well-being of patients suffers: they become irritable, get tired quickly, complain of poor sleep and appetite. Against the background of a decrease in the reactivity of the body, various diseases of internal organs and systems develop.

Causes of periodontal diseases.

The most common cause is poor oral hygiene, plaque buildup, and tartar deposition. The vast majority of periodontal diseases are inflammatory in nature. Gum inflammation occurs under the influence of plaque microorganisms. If plaque is not removed by brushing for a long time, then the soft plaque under the action of minerals in saliva turns into tartar, which is removed only with the help of professional oral hygiene. Tartar has a porous structure and contributes to the accumulation of even more soft plaque, in addition, tartar mechanically injures the gums, bedsores appear. Consequently, areas of the dentition that are difficult to clean can be predisposing factors for the development of periodontal diseases: crowding of teeth, overhanging edges of fillings, improperly made crowns and dentures, malocclusion; also, the presence of bad habits: smoking, habits associated with frequent injury to the gums, namely improper



and inappropriate use of toothpicks or matches; other injuries: sharp edges of carious cavities, injuries associated with wearing poorly made dentures, overload of certain groups of teeth due to the absence of a large number of teeth. The course of the disease is aggravated due to the presence of common somatic diseases (diseases of the cardiovascular system, gastrointestinal tract, hormonal disorders, etc.).

In the presence of supragingival and subgingival tartar, the gingival margin is constantly injured, which leads to the development of a chronic inflammatory process in it, as a result of which pathological gingival pockets are formed. Therefore, tartar must be removed periodically (1-2 times a year).

Complaints of patients with periodontal diseases.

The first sign of periodontal disease is bleeding gums when brushing teeth or when eating.

- bad breath
- pain when cleaning or eating
- tooth mobility
- itching, burning, and flying gum pain
- pain from cold or hot. The main alarm signal is an increased reaction that occurs when chemical and thermal stimuli affect the area of the necks of the teeth, which is important when eating
- unpleasant sensations when chewing

Prevention and treatment of periodontal tissue diseases.

Prevention: maintaining a high level of personal oral hygiene, eating harsh, plant-based foods, uniform participation of all teeth in chewing, regular visits to the dentist for timely removal of dental deposits and dental fillings. Dietary disorders play a role in the development of periodontal disease. It is known that one of the conditions for the normal course of metabolic processes is a balanced diet: a diet containing the right amount of proteins, fats, carbohydrates, vitamins and trace elements.



In the presence of the above complaints, it is necessary to consult a dentist for professional oral hygiene, as well as to identify the severity of periodontal diseases and prescribe the necessary treatment.

Treatment is individual and comprehensive, and the choice of methods depends on the stage of the disease, the nature of the complication, and the general condition of the body.

In most cases, the elimination of traumatic factors, proper oral care, and smoking cessation lead to the disappearance of gingivitis (in the absence of dental calculi, hygiene is necessary), and local remedies may be prescribed by a dentist.: antiseptics, anti-inflammatory drugs, enzymes, essential oils.

Conservative treatment of periodontitis is aimed at strengthening the gums. Unfortunately, it is almost impossible to restore the destroyed bone tissue to its previous position.

Prevention of periodontal diseases should be carried out in the following areas:

- rational nutrition;
- the use of fluoride preparations;
- elimination of malocclusion and abnormal structure and location of some soft tissues and organs of the oral cavity, elimination of supracontact and functional selective grinding (traumatic factor);
- elimination of defects in filling, prosthetics and orthodontic treatment;
- elimination of violations of the architectonics of attachment of soft tissues of the vestibule of the oral cavity;
- timely dental treatment;
- compliance with oral hygiene;
- treatment of concomitant diseases.



Prevention of periodontal diseases should begin from the first years of a child's life, ensuring proper sucking and swallowing functions at the first stages. From the age of 4, it is possible to carry out oral cavity sanitation (restoration of the normal shape of tooth crowns by filling and normal bite). It is necessary to monitor the elimination of harmful habits in children (nail biting, lip licking) and proper chewing of food (including the mandatory consumption of hard food). It is necessary to observe oral hygiene from childhood.

Since periodontal diseases are highly dependent on the general immune status of the body and the state of the vascular system, it is necessary to monitor their support, which is largely determined by the normalization of nutrition and healthy lifestyle. Food (both in childhood and in adults) should contain sufficient amounts of protein, ascorbic acid, vitamin E, and mineral salts. People who have the initial signs of periodontal disease need a diet with limited intake of carbohydrates and fats. Food products should contain choline, lecithin, methionine (cottage cheese, legumes, cabbage, oatmeal, fish), which prevents the deposition of cholesterol in blood vessels. Lactic acid products, vegetables and fruits that promote the elimination of cholesterol from the body are mandatory. It is extremely important to monitor the condition of the gastrointestinal tract, to detect and treat dysbiosis in time.

In the general complex of preventive measures, it is necessary to give place to gum massage, which trains the vessels of the maxillofacial region. This includes finger massage of the gums, and hydro massage.

In the prevention of periodontal diseases, circumstances that can lead to an overload of certain groups of teeth (orthodontic treatment at an early age, rational prosthetics in adults) should be eliminated.

Since periodontal diseases are closely related to many somatic diseases, both the prevention of the latter and the complete elimination of the consequences of past illnesses (in particular, acute infectious diseases of various etiologies) are extremely



important. It is necessary to eliminate any overloads of the body, including nervous (stressful conditions).

Smoking is one of the predisposing factors of periodontal disease. Therefore, it is necessary to get rid of this bad habit. People who are exposed to occupational hazards are also at risk for periodontal diseases. Therefore, it is necessary to avoid the influence of harmful environmental factors (gases, dust particles, thermal radiation, low temperatures, etc.) as much as possible.

It is necessary to carefully monitor the condition of teeth and consult a dentist on time, since untreated teeth are a constant source of infection.

The main factor preventing the development of periodontal diseases is proper oral hygiene using an arsenal of modern remedies. Today, the following personal oral hygiene products are available: toothbrushes of various modifications, dental floss for cleaning interdental spaces, toothpicks, interdental stimulants, tongue cleansing devices, interdental brushes, oral irrigators, tooth powders, toothpastes and gels, mouthwashes, deodorant sprays, chewing gums, care products for removable orthopedic and orthodontic structures, dyes for self-detection of dental deposits, individual dental mirrors.

The effectiveness of therapeutic and prophylactic toothpastes is determined by their composition, the components of which affect periodontal tissues and the oral mucosa. Toothpastes may contain the following components:

- biologically active additives (sources of micro- and macronutrients, vitamins) that enhance protective processes in tissues;
- enzymes that remove plaque and have a bactericidal effect;
- antibacterial drugs that affect microorganisms in the oral cavity;
- mineral salts that improve blood circulation, dissolve mucus, and prevent plaque formation;
- agents that reduce the sensitivity of dental hard tissues (for example, 10% strontium chloride, potassium chloride, formaldehyde, aluminum lactate);



- abrasive substances;
- gel-forming and foaming substances, dyes, fragrances that improve the taste of the paste;
- agents that prevent the formation of tartar and effectively remove soft and even partially mineralized dental deposits (however, regular use of such pastes can lead to premature abrasion of tooth enamel);
- bleaching ingredients.
- Pastes containing powerful antiseptics (triclosan and chlorhexidine) can cause tooth enamel pigmentation and imbalance of the oral microflora.

Toothbrushes are also diverse and are selected strictly individually, taking into account the characteristics of a particular person. Many of them have special options that allow you to massage your gums simultaneously with brushing your teeth. Modern toothbrushes (which come in different degrees of hardness) are distinguished by a very original arrangement, shape and height of the bristle bundles, which allows them to clean the most inaccessible places of the oral cavity. Of particular note are electric toothbrushes, in which, due to the motor, the head performs both vibratory and rotational movements, which significantly increases their efficiency. Ultrasonic toothbrushes are based on the ultrasonic destructive effect on bacteria, and intensive foaming additionally helps to eliminate plaque. There are also acoustic and ion toothbrushes (in the latter, plaque is actively destroyed due to the electrostatic interaction of particles with dissimilar charges). A toothbrush should not be used for more than 2-3 months due to the accumulation of microorganisms in it and the abrasion of its bristles. After use, the brush should be thoroughly washed with soap and running water each time.

Interdental brushes perfectly clean wide interdental spaces, spaces under non-removable dentures and orthodontic structures. Dental floss is suitable for cleaning narrow interdental spaces. There are special thread guides for conducting a floss under



an orthodontic arch or under a bridge-like prosthesis. Special dental floss is used for sensitive teeth.

Toothpicks are designed to remove food debris from the interdental spaces and to remove plaque from the side surfaces of teeth. However, when using them, care must be taken to avoid injury to soft tissues and enamel. Interdental stimulators – elastic cones made of rubber or soft plastic – are designed to massage the gingival papillae.

If orthopedic or orthodontic structures (prostheses, braces, bridges, crowns, splints, etc.) are present in the oral cavity, it is necessary to monitor their cleanliness especially carefully. Removable structures are washed and cleaned daily with a toothbrush with soap or toothpaste. There are also special instant tablets for cleaning removable dentures.

Currently, there are more complex devices (for example, oral irrigators) that at home can effectively clean the interdental spaces, spaces under dentures, shallow spaces under exfoliated gums with simultaneous effective hydro massage of the gums. Irrigators provide a constant or pulsating stream of water or antiseptic solution with a pressure of 2 to 10 atm flowing from a narrow tip.

In addition, it is necessary to periodically carry out a complete hygiene complex in a dental clinic (professional oral hygiene), including, in particular, effective removal of dental deposits, plaque removal, teeth whitening, coating teeth with special fluoride-containing varnishes, polishing teeth.

Oral hygiene in periodontal pathology helps to consolidate the results of treatment and eliminate relapses, and in healthy people it helps to prevent periodontal diseases.

List of used literature:

1. Asrorovna, X. N., Baxriddinovich, T. A., Bustanovna, I. N., Valijon O'g'li, D. S., & Qizi, T. K. F. (2021). Clinical Application Of Dental Photography By A Dentist. *The American Journal of Medical Sciences and Pharmaceutical Research*, 3(09), 10-13.



2. Ugli, A. A. A., & Bustanovna, I. N. (2024). STUDY OF THE CONDITION OF PARODONT IN PERIODONTITIS IN FETAL WOMEN. *European International Journal of Multidisciplinary Research and Management Studies*, 4(05), 149-156.
3. Kizi, J. O. A., & Bustanovna, I. N. (2024). FAMILIARIZATION WITH THE HYGIENIC ASSESSMENT OF THE CONDITION OF THE ORAL MUCOSA IN ORTHOPEDIC TREATMENT. *European International Journal of Multidisciplinary Research and Management Studies*, 4(05), 89-96.
4. Bustanovna, I. N. (2024). Determination of the Effectiveness of Dental Measures for the Prevention of Periodontal Dental Diseases in Workers of the Production of Metal Structures. *International Journal of Scientific Trends*, 3(5), 108-114.
5. Bustanovna, I. N. (2022). Assessment of clinical and morphological changes in the oral organs and tissues in post-menopause women. *Thematics Journal of Education*, 7(3).
6. Bustanovna, I. N., & Berdiqulovich, N. A. (2022). ПРОФИЛАКТИКА И ЛЕЧЕНИЯ КАРИЕСА У ПОСТОЯННЫХ ЗУБОВ. *JOURNAL OF BIOMEDICINE AND PRACTICE*, 7(1).
7. Bustanovna, I. N. (2024). PATHOGENESIS OF PERIODONTAL DISEASE IN ELDERLY WOMEN. *Лучшие интеллектуальные исследования*, 21(3), 25-29.
8. Bustanovna, I. N. (2024). TO STUDY THE HYGIENIC ASSESSMENT OF THE CONDITION OF THE ORAL MUCOSA DURING ORTHOPEDIC TREATMENT. *Лучшие интеллектуальные исследования*, 21(1), 9-15.
9. Bustanovna, I. N. (2024). CLINICAL AND LABORATORY CHANGES IN PERIODONTITIS. *Journal of new century innovations*, 51(2), 58-65.
10. Bustanovna, I. N. (2024). Morphological Changes in Oral Organs and Tissues in Women after Menopause and their Analysis. *International Journal of Scientific Trends*, 3(3), 87-93.
11. Bustanovna, I. N. (2024). Hygienic Assessment of The Condition of The Oral Mucosa After Orthopedic Treatment. *International Journal of Scientific Trends*, 3(3), 56-61.
12. Bustanovna, P. I. N. (2024). Further Research the Features of the Use of Metal-Ceramic Structures in Anomalies of Development and Position of Teeth. *International Journal of Scientific Trends*, 3(3), 67-71.
13. Bustanovna, I. N. (2024). The Effectiveness of the Use of the Drug "Proroot MTA" in the Therapeutic and Surgical Treatment of Periodontitis. *International Journal of Scientific Trends*, 3(3), 72-75.



14. Bustanovna, P. I. N. (2024). Research of the Structure of Somatic Pathology in Patients with Aphthous Stomatitis. *International Journal of Scientific Trends*, 3(3), 51-55.
15. Bustanovna, I. N., & Abdusattor o'g, A. A. A. (2024). Analysis of Errors and Complications in the Use of Endocal Structures Used in Dentistry. *International Journal of Scientific Trends*, 3(3), 82-86.
16. Bustanovna, I. N. (2024). Complications Arising in the Oral Cavity after Polychemotherapy in Patients with Hemablastoses. *International Journal of Scientific Trends*, 3(3), 62-66.
17. Bustanovna, I. N., & Sharipovna, N. N. (2023). Research cases in women after menopause clinical and morphological changes in oral organs and their analysis. *Journal of biomedicine and practice*, 8(3).
18. Bustonovna, I. N., & Sharipovna, N. N. (2023). Essential Factors Of Etiopathogenesis In The Development Of Parodontal Diseases In Post-Menopasis Women. *Eurasian Medical Research Periodical*, 20, 64-69.
19. Fakhridin, C. H. A. K. K. A. N. O. V., Shokhrub, S. A. M. A. D. O. V., & Nilufar, I. S. L. A. M. O. V. A. (2022). ENDOKANAL PIN-KONSTRUKSIYALARNI ISHLATISHDA ASORATLAR VA XATOLAR TAHLILI. *JOURNAL OF BIOMEDICINE AND PRACTICE*, 7(1).
20. Очиллов, Х. У., & Исламова, Н. Б. (2024). Особенности артикуляции и окклюзии зубных рядов у пациентов с генерализованной формой повышенного стирания. *SAMARALI TA'LIM VA BARQAROR INNOVATSIYALAR JURNALI*, 2(4), 422-430.
21. Ortikova, N., & Rizaev, J. (2021, May). The Prevalence And Reasons Of Stomatophobia In Children. In *E-Conference Globe* (pp. 339-341).
22. Ortikova, N. (2023). ANALYSIS OF ANESTHESIA METHODS FOR DENTAL FEAR AND ANXIETY. *Центральноазиатский журнал академических исследований*, 1(1), 8-12.
23. Ortikova, N. K. (2023). DENTAL ANXIETY AS A SPECIAL PLACE IN SCIENTIFIC KNOWLEDGE. *SCHOLAR*, 1(29), 104-112.
24. Исламова, Н. Б. (2024). ПАРОДОНТ КАСАЛЛИКЛАРИДА ОРГАНИЗМДАГИ УМУМИЙ ЎЗГАРИШЛАРНИ ТАҲЛИЛИ ВА ДАВОЛАШ САМАРАДОРЛИГИНИ ТАКОМИЛЛАШТИРИШ. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 43(7), 18-22.
25. Islamova, N. B., & Chakkonov, F. K. (2021). Changes in the tissues and organs of the mouth in endocrine diseases. *Current Issues in Dentistry*, 320-326.