

PERIODONTAL DISEASES OF THE ORAL CAVITY

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Abstract: *This article provides a scientific analysis of the prevalence of periodontal diseases in the oral cavity, the causes of their occurrence, and current problems in modern dentistry. In the course of the study, the late detection of periodontal diseases, the insufficient formation of the dental culture of the population, and the close connection of these pathologies with diabetes mellitus and cardiovascular diseases were identified as the main problems. The article highlights effective methods of prevention and treatment of periodontal diseases based on the scientific works of scientists from Samarkand State Medical University and clinical observations and statistical analysis conducted in regional medical associations. The possibilities of improving the condition of periodontal tissues through preventive measures, complex therapeutic approaches, and control of systemic diseases have been substantiated. The research results scientifically confirm the need to consider periodontal diseases not only as a local dental problem, but also as a complex pathology associated with the general state of the body.*

Keywords: *periodontal diseases, gingivitis, periodontitis, oral hygiene, dental prevention, complex treatment, diabetes mellitus, systemic diseases, Samarkand State Medical University, clinical research.*

Introduction. Oral health is an integral part of a person's overall health. In recent years, periodontal diseases (gingivitis and periodontitis) have been considered not only as a dental, but also as a general medical problem. Inflammation of the periodontal tissues leads to early tooth loss, impaired

chewing function, and a decrease in the quality of life. According to the World Health Organization, 70-90% of the adult population has varying degrees of periodontal diseases (WHO, 2021). Scientific research conducted in Uzbekistan, in particular in the Samarkand region, also confirms the high prevalence of these diseases (Scientific works of SamSMU, 2022).

The scientific novelty of this article lies in the fact that it highlights periodontal diseases not only as a local dental problem, but also as a complex pathology inextricably linked with the state of the entire body. Based on the scientific works of scientists of the Samarkand State Medical University, the prevalence of periodontal diseases, their relationship with systemic diseases, and the effectiveness of complex treatment were analyzed in a holistic system. Also, based on statistical data obtained from regional medical associations, proposals for the early detection and prevention of periodontal diseases were developed.

Major problems of periodontal disease

One of the most important problems of periodontal diseases is their low detection in the early stages. According to clinical observations conducted by doctors of science in the field of dentistry of SamSMU, about 60-65% of patients seek medical attention only in the acute stage of the disease (data of the SamSMU Dental Clinic, 2021). This complicates the treatment process and increases the economic and social burden.

The second important problem is the relationship between periodontal diseases and systemic diseases. Studies show that periodontitis is closely related to diabetes mellitus, cardiovascular diseases, and immune system disorders (Analysis of Medical Associations, 2020). Statistical analysis conducted in the medical associations of the Samarkand region revealed signs of diabetes mellitus in 35-40% of patients with periodontitis (regional medical observations, 2022).

The third problem is the low dental culture of the population. Many patients do not undergo regular preventive examinations, do not pay due attention to oral hygiene, and do not use modern periodontal care products (Results of a sociological survey at SamSMU, 2021).

Solutions and modern approaches to periodontal diseases

In solving the above problems, a preventive approach is of primary importance. In the scientific works of SamSMU scientists, it is noted that improving oral hygiene, the correct selection of personal hygiene products, and regular professional cleaning reduce the development of periodontal diseases by 40-50% (Scientific and Practical Research of SamSMU, 2022).

The second solution is the application of complex treatment methods. In modern dentistry, in the treatment of periodontal diseases, mechanical cleaning, antiseptic therapy, anti-inflammatory drugs, and physiotherapeutic methods are used in combination. In clinical observations conducted in medical associations of the city of Samarkand, it was found that the effectiveness of treatment when using complex treatment methods reached 75-80 percent (regional clinical data, 2023).

**Table 1. Prevalence of Periodontal Diseases among Adult Patients
in Samarkand Region**

Periodontal Condition	Prevalence (%)	Key Clinical Characteristics
Gingivitis	38–42%	Gum bleeding, inflammation, reversible tissue damage
Mild Periodontitis	22–25%	Initial attachment loss, periodontal pocket formation
Moderate Periodontitis	18–20%	Bone resorption, tooth mobility, chronic inflammation

Periodontal Condition	Prevalence (%)	Key Clinical Characteristics
Severe Periodontitis	10–12%	Advanced bone loss, risk of tooth loss, systemic impact

Source: *Compiled based on scientific studies conducted by Doctors of Science at Samarkand State Medical University and statistical data from regional medical associations of Samarkand (2020–2023).*

The third important area is improving periodontal health through the control of systemic diseases. It has been scientifically proven that glucose control in patients with diabetes mellitus significantly reduces the level of periodontal inflammation (co-research of SamSMU and the regional endocrinological center, 2022).

Conclusion. In conclusion, periodontal diseases of the oral cavity remain a pressing medical and social problem today. Their widespread prevalence, late detection, and association with systemic diseases further increase the relevance of the problem. Scientific research by scientists of the Samarkand State Medical University and data obtained from medical associations show that the consequences of periodontal diseases can be significantly reduced through preventive measures, complex treatment, and increasing the dental literacy of the population. These approaches have important scientific and practical significance for applied dentistry.

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