

DENTAL CONDITION OF PERSONS PREDISPOSED TO OBESITY**Zoyirov Tulkin Elnazarovich****Samarkand State Medical University.****Keywords:** periodontal tissues, teeth, obesity.

According to studies by many authors, dental diseases are currently the most common pathologies [6,8]. An important modern medical and socio-economic problem is periodontal disease due to its widespread prevalence, progressive course, loss of function of the dental system and loss of teeth, which leads to a decrease in the quality of life of patients [2,4]. The authors argue that microorganisms play a leading role in the development of inflammatory processes in periodontal tissues [1,8]. It is also indicated that inflammatory phenomena in the periodontium depend on the microbial composition of dental plaque [3,4].

To date, the relationship between pathological changes in the periodontium and systemic disorders in obesity remains poorly understood, which indicates the need for study and detailed analysis using modern research methods. Further study of this problem may become the basis for new approaches to the treatment and prevention of periodontal diseases [2, 5]. In the published literature there is insufficient information on comprehensive studies of the periodontal condition of obese patients, taking into account the state of bone tissue and periodontal microvasculature. There are few works in the literature devoted to preventive measures and an integrated approach to the treatment of periodontal tissue diseases in obese patients.

Purpose of the study. Study of the condition of periodontal tissues and teeth in individuals with a predisposition to obesity.

Materials and methods of research. To solve the research objectives, patients who were treated in hospitals and private dental clinics in the cities of Samarkand and Tashkent were examined. The work was carried out on the basis of the Department of Therapeutic Dentistry of Samar Kand State Medical University.

During our work, we examined 130 patients. In accordance with the purpose of the study, patients were divided into 2 groups:

1. Group of obese patients - 80 people.
2. Control group of patients who are not obese - 50 people. The average age of patients in all groups was 41.5 ± 6 years.

The main study group consisted of patients who met the criteria for the diagnosis of obesity. The diagnosis was made using data from an anthropometric study of patients, determining a body mass index (BMI) > 30.0 (kg/m²) and a waist-to-hip ratio index (WHI) in women more than 0.85, in men - more than 0.9. The control group consisted of patients without obesity.

The study of the periodontal status of patients was carried out according to the following scheme:

- collecting anamnesis, external examination of the patient,
- index assessment of the condition of periodontal tissues, including the level of hygiene, intensity of inflammation, degree of destruction of periodontal tissues; presence and magnitude of gum recession;
- determination of tooth mobility;
- X-ray examination of the condition of the jaw bones.

Special methods were used to assess bone tissue density using an ultrasonic osteodensitometer Sunlight Omniscense 7700; to study the state of the microvasculature of periodontal tissues, a Minimax Doppler-K ultrasonic Doppler scanner was used.

Results and its discussion. During our study, data on somatic status were collected, which made it possible to divide the groups of examined patients into the main and control groups. The main and control groups of patients were comparable in age, gender and concomitant somatic pathologies.

Exclusion criteria from the study included the following somatic diseases: chronic renal failure, pregnancy and lactation, diabetes mellitus, respiratory failure, severe anemia, cancer, taking medications that affect the level of bone resorption and gingival hypertrophy, severe somatic diseases in the stage of decompensation.

The average age of patients in the obese group was 42 ± 5.1 years, and in the non-obese group it was 41 ± 6.9 years. The correlation between groups by age is significant ($p < 0.05$) (Table 1).

**Table 1 .
Comparison of patient groups by age**

Main group of patients (average age)	Control group of patients (average age)
42 ± 5.1	41 ± 6.9

In the main group of patients there were 27 (33.75%) men, 53 (66.25%) women, in the control group 15 (30%) men and 35 (70%) women (Table 2).

The table shows that female patients predominate in both groups.

**table 2
Ratio of patient groups by gender**

Patient gender	Main group of patients n=80	Control group of patients n=50
Male	33.75%	thirty%
Female	66.25%	70%

The studied groups of obese patients and patients from the control group are comparable in the presence of somatic diseases. Most often, the examined patients suffered from diseases of the cardiovascular system (arterial hypertension, essential hypertension). Somatic diseases at the time of the study were in the stage of compensation.

In patients of the main group, according to BMI values, obesity of varying degrees of severity was diagnosed (average BMI = 34.4 ± 3.4). 1st degree obesity was diagnosed in 51 patients (63.75%), 23 (28.75%) were diagnosed with 2nd degree, and 6 (7.5%) were diagnosed with 3rd degree (Figure 1).

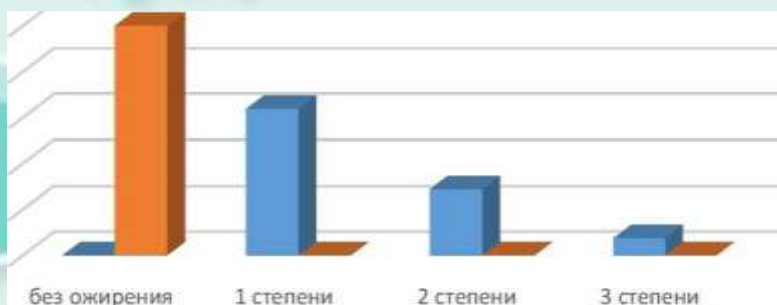


Figure 1 - Distribution of BMI indicators in patients with different degree of obesity

The body mass index of patients in the control group met the criteria norms. In the main group, patients with 1 and 2 degrees of obesity predominated. Obesity of the 1st degree was noted in 32 (40.0%) women and 19 (23.75%) men. Obesity of the 2nd degree was noted in 19 (23.75%) women and 4 (5.0%) men. In the examined groups of patients, female patients predominated (Table 3).

Table 3.

Comparison of groups by degree of obesity

Floor	Obesity 1st degree	Obesity 2 degrees	Obesity 3 degrees
Female	32 (40%)	19 (23.75%)	2(2.5%)
Male	19 (23.75%)	4 (5%)	4 (5%)

Patients in both groups underwent an examination of the oral cavity, as a result of which no diseases of the temporomandibular joint, pathological elements on the oral mucosa, or pronounced changes in the bite were detected. During the study of the dental status of patients, dentition defects were identified in 74 (92.5%) patients in the obese group and in 45 (90.0%) patients in the control group. According to this criterion, the groups are comparable ($p < 0.05$).

Analysis of the hygiene index shows that the level of oral hygiene in patients of both groups is approximately at the same level. According to this criterion, the groups are also comparable ($p < 0.05$). The average IG value in the main group was 2.73 ± 0.86 , and in the control group - 3.06 ± 1.01 .

In 3 patients (3.75%) of the main group, IH corresponded to a good level of oral hygiene according to the Fedorov-Volodkina system. In 12 patients (15.0%) the quality of hygiene is satisfactory, in 6 patients (7.5%) it is unsatisfactory, in 35 patients (43.75%) it is poor and in 24 patients (30.0%) it is very poor. In patients of the control group, good quality of hygiene was determined in 3 people (6.0%), satisfactory quality of hygiene - in 8 people (16.0%), unsatisfactory quality of hygiene - in 5 people (10.0%), poor quality of hygiene - 16 people (32.0%) and very poor hygiene quality - 18 people (36.0%).

According to the literature, adipose tissue is a substance that secretes pro-inflammatory cytokines. Some studies have shown the ability of adipose tissue to form an immunological background favorable for the development of inflammatory

diseases. The inflammatory reaction is realized in the tissue that makes up the majority of the body (up to 50% or more of body weight), which can lead to systemic consequences. The analysis of literature data and studies revealed that obesity is one of the etiopathogenetic factors contributing to the development of inflammatory diseases of periodontal tissue and teeth.

Conclusions. Studying the dental status of people with a predisposition to obesity is an urgent modern problem. The average age of patients in the obese group was 42 ± 5.1 years, and in the non-obese group it was 41 ± 6.9 years. Obesity of varying degrees is often observed in females, accounting for 71% of those studied in the main group. The dental status of patients is closely related to the quality of oral hygiene, which in the main group was poor in 43.75% and very poor in 30.0%, and good in 36% of cases and satisfactory in 32% in the control group.

Summary. To date, the relationship between pathological changes in the periodontium and systemic disorders in obesity remains poorly understood, which indicates the need for study and detailed analysis using modern research methods. Further study of this problem may become the basis for new approaches to the treatment and prevention of periodontal diseases. An important modern medical and socio-economic problem is periodontal disease due to its widespread prevalence, progressive course, loss of function of the dental system and loss of teeth, which leads to a decrease in the quality of life of patients.

List of references

1. Zoyirov T. E., Indiaminova G. N. Improvement of Methods of Providing Dental Care for Children with Mental Delay //Central Asian Journal of Medical and Natural Science. – 2021. – T. 2. – №. 6. – C. 167-170.
2. Indiaminova G. N., Zoirov T. E. Improvement Of Methods Of Providing Dental Care For Children With Mental Delayed Development //The American Journal of Medical Sciences and Pharmaceutical Research. – 2021. – T. 3. – №. 01. – C. 111-116.
3. Gavhar I., Utkurovna U. Y. IMPROVING THE METHODS OF PREVENTING CARIES IN THE FISSURE AREA OF PERMANENT TEETH IN CHILDREN //Journal of new century innovations. – 2022. – T. 18. – №. 4. – C. 16-18.
4. Nuriddinova I. G., Utkurovna U. Y. Improving methods to prevent caries of the permanent tooth fissure area in children //ACADEMICIA: An International Multidisciplinary Research Journal. – 2022. – T. 12. – №. 5. – C. 436-439.
5. ИНДИАМИНОВА Г. Н., ЯКУБОВА С. Р. ПРИМЕНЕНИЕ МЕСТНЫХ ИНДИВИДУАЛЬНЫХ МЕТОДОВ ПРОФИЛАКТИКИ КАРИЕСА ПОСТОЯННЫХ ЗУБОВ У ДЕТЕЙ С УМСТВЕННЫМИ ОТКЛОНЕНИЯМИ //ЖУРНАЛ БИМЕДИЦИНЫ И ПРАКТИКИ. – 2022. – Т. 7. – №. 6.
6. НДИАМИНОВА Г. Н. АҚЛИ ЗАЙФ БОЛАЛАР МАХСУС МАКТАБ ИНТЕРНАТЛАРИ ТАРБИЯЛАНУВЧИЛАРИГА СТОМАТОЛОГИК ЁРДАМ КЎРСАТИШДА МАХСУС ИТ-ДАСТУРЛАРНИ ИШЛАБ ЧИҚИШ ХАМДА УНИНГ САМАРАДОРЛИГИНИ БАХОЛАШ



- //ЖУРНАЛ БИОМЕДИЦИНЫ И ПРАКТИКИ. – 2022. – Т. 7. – №. 6.
7. Индиаминова Г., Зоиров Т. MAXSUS YORDAMCHI MAKTABLARDA TARBIYALANUVCHI AQLI ZAIF BOLALARGA STOMATOLOGIK YORDAM KO'RSATISHNI OPTIMALLASHTIRISH //Журнал стоматологии и краниофациальных исследований. – 2020. – Т. 1. – №. 1. – С. 12-14.
8. Abduvakilov J. et al. EVALUATION OF EARLY INFLAMMATORY CHANGES IN THE PERIODON OF THE BASIC TEETH //European journal of molecular medicine. – 2022. – Т. 2. – №. 1.
9. Abduvakilov J. et al. EFFECTS OF NON-METAL NON-CERAMIC DENTAL PROSTHETICS ON SALIC ACID BALANCE AND MINERAL HOMEOSTASIS //European journal of molecular medicine. – 2022. – Т. 2. – №. 1.
10. Abduvakilov J. et al. EFFECTS OF NON-METAL NON-CERAMIC DENTAL PROSTHETICS ON SALIC ACID BALANCE AND MINERAL HOMEOSTASIS //European journal of molecular medicine. – 2022. – Т. 2. – №. 1.