

**EVALUATION OF PARADONT TISSUE STATUS IN DENTAL PATIENTS**

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**Resume.** Based on the results obtained below, a method for assessing the condition of periodontal tissue in elderly and elderly patients from different social groups living in the Bukhara region is recommended. Among patients of gerontological age in different social groups, the intensity of dental cage, the increased intensity of paradontic diseases, and the high level of unsatisfactory status were identified.

**Keywords:** paradont, old, CPI index,

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**Log in.** As a result of epidemiological studies in many countries of the world, it is reported that the dental condition of the oral cavity in older people is unsatisfactory. Tooth loss occupies a high ranking due to dental changes in the oral cavity [7–11]. It is known that in the principles of social gerontology, in assessing the criteria for the health of the elderly, along with an integral assessment of health, such an indicator as the number of teeth preserved is used in assessing the level of mobility of people, their social activity, the preservation of their visual and hearing abilities [12].

An example is the percentage of secondary adentemia among elderly patients living in different countries of the world. The incidence of disease in old age has a number of features associated with the nature of aging. This is a special manifestation of the disease, a large number of somatic pathologies, an unusual course of diseases and rapid deterioration of the condition, a high frequency of complications, the need for further rehabilitation. Dental health is the most important social quality in the life of an elderly person, it is an integral part of his whole health, which is an integral part of the life of the elderly in order to eat properly, socialize with other people, fulfill their role in their social life. The high prevalence of paradontic disease is a common medical and social problem, therefore, the improvement of therapeutic treatments to combat and prevent this disease, including the preventive component of measures to combat it, remains a constant urgent problem of medical sciences and practice.

The prevalence of inflammatory diseases of the paradontic tissue in the adult group of the population (from 97 to 100%) indicates that this problem is of significant importance in dentistry. Some researchers say that people over 40-45 years of age and the elderly are characterized by severe cases of paradontitis [20]. However, according to a number of studies, the severe course of the disease is not as widespread as is usually believed. However, the progressive form of the disease is still observed in 15-20% of these age groups.

Periodontitis, being a politic disease, remains the number one problem in dentistry and is causing significant treatment difficulties for doctors. Worldwide, periodontal inflammatory disease is the most common type of disease among the elderly [73]. This is confirmed by the latest data from WHO, according to which the prevalence of paradontic disease (PC) among adults in the world reaches 98%, in the 15-19 age group - 55-99%. The highest percentage of young people suffering from paradontal diseases of varying severity in this group were identified in Africa (90%) and Southeast Asia (95%). In the American continent, the share of healthy paradont youth is 18%, and in the European region it is 19-20%. In the 35-44 year group, the global wage spread is 65-98%. In Europe, 10-15% of the population has deep pockets, with five or more sectarians affected. About

70% of the adult population in the United States suffers from periodical inflammatory disease, with 20–30% of people having a certain tooth removed due to paradontitis.

**Materials and methods:** This study included patients in need of orthopedic rehabilitation with partial and complete displacement. However, the severity of paradontic disease could only be assessed in patients with partial toothlessness, so we did not include elderly patients with partial toothlessness in our study (Table 1).

Division of patients in the study with partial toothlessness into groups. (%)

Research Groups	Males %		Women %		Total %	
Group 1 Bukhara Women's Home for Persons with Disabilities	19	24%	36	28%	62	40%
Group 2 Patients living under the care of relatives	26	16,8%	28	18,1%	54	34,8%
Group 3 Patients living alone	21	13,5%	18	11,6%	39	25,2%

**Results and Their Discussion:** To assess the severity of paradontal disease, we used the CPI index in our study. It's important to note that we didn't take healthy tissue into account in our study. To assess the condition of paradont tissue (Community Paradont Index, CPI), three indicators of paradont condition were taken into account during the examinations: i.e., breast bleeding, tartar, pathological breast pocket. The examination was carried out using a paradontal probe that has symptoms of 3.5 mm, 5.5, 8.5 mm and 11.5 mm. To determine the CPI index, the tooth row is conventionally divided into 6 parts, including the following teeth: 17 – 14; 13 - 23; 24 - 27; 37 - 34; 33-43; The periodontal condition of 44-47 and 10 teeth was studied: 17/16, 21, 26/27, 36/37, 31, 46/47. In each sect, an examination was performed in the area of the index teeth and noted only one tooth paradontic condition with the most the exact clinical condition of the periodont. If there was no index tooth, all the remaining teeth in the sect were examined and the highest values were taken into account. If one tooth remained in the sect, then the sect was considered excluded. The calculation was carried out according to the codes, given in the tables

In order to study in more detail the intensity of paradontic disease among the patients included in the study, an intra-group and inter-group analysis was performed. To do this, the number of clinical signs of paradont tissue injury (hemorrhage, presence of tartar, paradont pockets more than 4-5 mm deep, paradont pockets more than 6 mm) in each group was determined according to the CPI index. The proportion of patients with different manifestations of periodontal tissue lesions was also determined, while the average number of sects in which different clinical signs were not noted.

Analysis of quantitative indicators of CPI index in group 1 patients.

Rubric	Men	Women	Reliability of difference in results
Healthy Tissue	-	-	-
Bleeding	0.17±0.07	0.09±0.05	t=0.9 P<95.5%
Tartar	1.27±0.21	1.25±0.1	t=0.1 P<95.5%
Paradont pocket with a depth of 4-5mm	1.9±0.24	2.5±0.22	t=1.9 P<95.5%
Paradont pocket with a depth of 6 mm or more	0.47±0.72	0.56±0.13	t=0.5 P<95.5%
A sectarian has one tooth or not a single tooth	2.2±0.26	1.59±0.25	t=1.7 P<95.5%

Sects with only one tooth or no tooth are excluded. The data are presented in Tables 11-18 and Figures 17-20. Patients were assigned by gender to assess the intensity of caring lesions within the

group. Indicators of the intensity of paradontic disease in group 1 patients are shown in Tables 11 and 12 and Figure 17.

When comparing the intensity of paradontic disease within group 1, the average value of the number of sects with hemorrhage was  $0.17 \pm 0.07$  in men and  $0.09 \pm 0.05$  in women. The presence of tartar was noted in  $1.27 \pm 0.21$  sectants in males and  $1.25 \pm 0.17$  sectants in females. The largest number of sectarians was observed on the basis of the presence of a paradont pocket 4–5 mm deep:  $1.9 \pm 0.24$  in group 1 males and  $2.5 \pm 0.22$  in females, respectively. The mean number of sectarians we recorded a paradont pocket with a depth of 6 mm or more was  $0.47 \pm 0.72$  in males and  $0.56 \pm 0.13$  in females. When comparing the mean number of excluded sectants, data were obtained indicating significant missing teeth in patients:  $2.2 \pm 0.26$  sectants in men and  $1.59 \pm 0.25$  sectants in women. The resulting values are very close, and there are no significant differences between them ( $t < 2$ ).

Indicators of clinical signs of paradont involvement in group 1 patients

Degree of clinical signs of paradont tissue disease (%)	Men	Women
Healthy Tissue	0	0
Milk bleeding	2,7	1,6
Tartar	21,1	20,8
Pathological milk pocket at a depth of 4-5 mm	31,7	41,6
Pathological milk pocket with a depth of 6 mm or more	7,8	9,4
Unregistered sects	36,7	26,6

The level of clinical signs of paradont disease, according to the CPI index, is listed in the manifestation indices, in which the total number of sectarians examined is taken as 100%, and the criteria for evaluating paradont diseases are calculated as one percent of them. Thus, men in group 1 were often listed as unregistered sectarians, which revealed that they either had one tooth or did not have a single tooth. (36.7%). A third (31.7%) of all patients had a pathological breast pocket 4-5 mm deep, while the share of individuals with pathological milk pockets 6 mm or more deep was 7.8%. Sects with tartar were recorded in 21.1% of cases, while bleeding from gums was one of the least detected cases (2.7%).

In contrast, in women in group 1, sects with pathological breast pockets with a depth of 4-5 mm (41.6%) were recorded, while the share of unregistered sects was 26.6%. In 9.4% of cases, women of group 1 were found to have pathological pocket sects 6 mm or more deep. Compared to men of group 1, women were less likely to bleed gums (1.6%), the presence of tartar was close to the male indicator (20.8%).

The mean number of sectarians with hemorrhage in Group 2 patients was  $0 \pm 19 \pm 0.08$  and  $0.18 \pm 0.07$  in men and women, respectively. The quantitative values of the number of sects present with tartar were approximately  $1.19 \pm 0.22$  and  $1.32 \pm 0.28$  in females, while the average value of sects with pathological pockets 4-5 mm deep was in males. ( $2,27 \pm 0,3$ ) was recorded in women ( $2,29 \pm 0,3$ ).

Clinical signs of injured paradontic tissue in group 2 patients.

Degree of clinical signs of paradont tissue disease (%)	Men	Women
Healthy Tissue	0	0
Milk bleeding	3,2	3,0
Tartar	19,9	22,0
Pathological milk pocket at a depth	37,8	38,1

of 4-5 mm		
Pathological milk pocket with a depth of 6 mm or more	13,5	11,3
The sectarian does not keep a single or a brortaham tooth in itself	25,6	25,6

The number of unreported sects was  $1.54 \pm 0.29$  in males and  $1.54 \pm 0.29$  in females, respectively. The mean number of sectarians reported with pathological breast pockets of 6 mm or more was  $0.81 \pm 0.26$  in males and  $0.68 \pm 0.17$  in females. All the obtained values are very close to each other, but in statistical processing showed that there are no significant differences between these indicators ( $t < 2$ ).

In group 2, paradontic tissue injury can be challenged to very close values when comparing the spread structure of patients according to the severity of clinical signs. Excluded sects in both men and women were recorded in 25,6% of cases. Paradont pockets are most often recorded in a sect 4–5 mm deep (37.8% in males, 38.1% in females). In group 2, paradontic pocket sects with a depth of 6 mm or more were recorded in 13.5% of cases in males and 11.3% in females. About one-fifth of all patients had tartar and sectantas: 19.9% in men and 22.0% in women. Hemorrhages were the least observed during testing (3.2% in males, 3.0% in females).

Figure 18. Comparative indicators of clinical signs of paradont injury in patients of group 2

In group 3 patients, the quantitative indicators of the number of sects with hemorrhage during the study were  $0.14 \pm 0.08$  and  $0.28 \pm 0.14$  in men and women, respectively. The average number of sects with watermelon in males ( $1.38 \pm 0.22$ ) is slightly higher than in females ( $1.11 \pm 0.24$ ). As in the analysis of the other two groups of the study, patients in group 3 had a large number of sectants with a pardon pocket depth of 4-5 mm:  $1.81 \pm 0.27$  sectants in males and  $1.83 \pm 0.29$  sectants in females. The highest number of sects in group 3 patients was recorded in the excluded category:  $1.81 \pm 0.31$  and  $2.22 \pm 0.28$ , respectively. Pokazateli intensivnosti zbole vaniy parodonta u patsientov gruppý 3 predstavlený v tablitsax 15 i 16 i na risunke 19.

The average number of sectants with paradont pockets 6 mm or more deep was slightly higher in males ( $0.86 \pm 0.28$ ), in group 3 women the index was  $0.56 \pm 0.15$  sectants. Statistical processing of the data showed that not all indicators in group 3 had significant differences between them ( $t < 2$ ).

Comparative data on the number of sectas, in which various clinical signs of paradontic tissue injury were reported according to the CPI index, are presented in Tables 17 and 18 and in Figure 20. They show that the rates of the number of sects present with tartar in patients in the three study groups are almost identical:  $1.26 \pm 0.13$ ,  $1.26 \pm 0.18$ , and  $1.26 \pm 0.19$  in patients in group 1,  $1.26 \pm 0.19$  and  $1.26 \pm 0.19$ , respectively. Sectantas compared the mean number, in which bleeding during probing was recorded, the highest value was recorded in patients of group 3 ( $0.21 \pm 0.08$ ), the average value in patients of group 2 ( $0.19 \pm 0.05$ ), and the lowest value in patients of group 1 ( $0.13 \pm 0.04$ ). In patients of groups 1 and 2, the number of sects with paradont pockets 4–5 mm deep was almost identical ( $2.21 \pm 0.17$  and  $2.28 \pm 0.21$ , respectively), and in patients of group 3 it exceeded this figure ( $1.82 \pm 0.2$ ). When analyzing the presence of paradont pockets with a depth of 6 mm, the highest value was found in patients of groups 2 and 3 ( $0.74 \pm 0.15$  and  $0.72 \pm 0.16$ ), and the lowest value in patients of group 1 ( $0.52 \pm 0.1$  seconds). Significantly more marginalized sects were observed in Group 3 ( $2 \pm 0.21$ ) patients, with this indicator being slightly lower in Group 1 ( $1.89 \pm 0.18$ ) patients, and the lowest value of all groups was reported in Group 2 patients ( $1.54 \pm 0.2$ ).

#### **Quantitative indicators of CPI index in group 3 patients**

Degree of clinical signs of paradont tissue disease (%)	Men	Women	Degree of clinical signs of paradont tissue disease (%)
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Healthy Tissue	-	-	-
Milk bleeding	0.14±0.08	0.28±0.14	t=0.9 P<95.5%
Tartar	1.38±0.22	1.11±0.24	t=0.7 P<95.5%
Pathological milk pocket at a depth of 4-5 mm	1.81±0.27	1.83±0.29	t=0 P<95.5%
Pathological milk pocket with a depth of 6 mm or more	0.86±0.28	0.56±0.15	t=0.9 P<95.5%
The sectarian does not keep a single or a brortaham tooth in itself	0.14±0.08	0.28±0.14	t=0.9 P<95.5%

The figures in Table 8 show that there were no significant differences in mean indicators of clinical signs of paradontic tissue injury when compared between groups.

In Figure 20, the frequency of clinical signs of paradont disease, according to the CPI index, is presented in the incidence indicators, in which the total number of sectarians examined is taken as 100%, and the criteria for evaluating paradontic diseases are calculated as their percentage. Thus, in patients in group 1 and group 2, the distribution of patients according to the frequency of clinical signs is approximately the same: the presence of pathological pockets of 4-5 mm depth (36.8% and 38%) was often noted. In second place were excluded sects in terms of prevalence in patients in groups 1 and 2 (31.4% and 25.6%, respectively). Sects with tartar were noted in 21% of patients in groups 1 and 2. The share of individuals with pathological milk pockets deeper than 6 mm was higher in group 2 (12.3%) than in group 1 (8.6%). Patients in both groups had the lowest likelihood of hemorrhages: 2.2% in group 1 and 3.1% in group 2.

Patients in group 1, by contrast, were more likely to bypass sectarians (33.4%). The share of those with paradont pockets 4–5 mm deep was 30.3%. In 12% of cases, patients in group 3 had a paradontic pocket 6 mm or more deep. The proportion of patients in them

Sectantas with the presence of tartar was noted, which corresponds to patients in groups 1 and 2. Compared to patients in group 1 and group 2, patients in group 3 were more likely to have hemorrhages during probing (3.4%).

In determining the level of hygiene, as well as assessing the severity of paradontic disease in the patients included in the study, only patients diagnosed with partial toothlessness were taken into account (Table 10).

For practical health care depending on the patient's living conditions, an orthopedic dental care algorithm for elderly and elderly patients is proposed, which allows applying a differential approach to each category of patients.

The use of this algorithm minimizes the stress of patients before orthopedic dental prosthetics, as well as saves time and improves the adaptation of each category of patients to removable dentures.

**Conclusions.** Based on the data obtained, data were obtained to analyze the quality of life of elderly and elderly patients from different social groups before and after orthopedic dental treatment. Based on the above data, clinical trial methods and survey results have been developed to improve the habituation and adaptation of elderly and elderly patients from different social groups to removable dentures. . Among patients of gerontological age from different social groups, the intensity of dental caries, the intensity of paradontic diseases, and the unsatisfactory level of hygiene are high.

Summing up the analysis of the prevalence of paradont disease in patients from the three study groups, it is important to note that all patients in the three study groups need paradont treatment. The

most favorable clinical picture was noted among patients of group 1 living in a gerontological center, and among patients of group 2 living with relatives.

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