



PREVALENCE, INTENSITY AND FEATURES OF THE CLINICAL COURSE OF PERIODONTAL DISEASES IN YOUNG AGE.

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Article history:	Abstract:
Received: August 11 th 2022 Accepted: September 11 th 2022 Published: October 18 th 2022	Relevance. The prevalence of periodontal disease has a steady upward trend. In the last decade, there has been a significant increase in periodontal disease in children and young adults. In 10-15% of 13–16-year-olds, children are diagnosed with generalized forms of gingivitis and periodontitis. The wide prevalence of inflammatory-destructive lesions and periodontal disease among young people requires the development of measures for their prevention. The basis of such measures is the data of mass epidemiological studies.

Keywords: WHO ,Periodontal diseases

PURPOSE OF THE STUDY.

To study the prevalence and intensity of inflammatory and destructive periodontal diseases in persons aged 17 to 25 years.

MATERIALS AND RESEARCH METHODS.

Mass examinations were carried out on the basis of the clinic of the Department of Therapeutic Dentistry of the Bukhara State Medical Institute. Abu Ali ibn Sino according to the WHO methodology. Practically healthy males (pre-conscripts and conscripts) aged 17-25 years old, in the amount of 800 people, were examined. The bulk of the surveyed were persons aged 17-20 years (70%), 20% - persons aged 21-22 years and only 10% were aged 23-25 years. The choice was considered representative, since in each age group the number of examined people exceeded 100.

The state of oral hygiene was determined by the Fedorov-Volodkina index in the modification of Fedorov (1982), and the state of the periodontium was determined using the periodontal index (PI) according to Russel (1967).

RESULTS OF THE STUDY

The prevalence of periodontal diseases in the studied male population group is high - more than 50% and averages 520 people per 1000 examined, including 230 people with periodontitis and 290 people with gingivitis.

The prevalence of gingivitis is 10% higher than the prevalence of periodontitis. However, this difference is provided by a larger number of patients with localized forms of gingivitis. In generalized forms

of periodontal lesions, the spread of periodontitis was 54%, which is 8% more than the prevalence of generalized catarrhal gingivitis. Thus, young people already have severe forms of periodontal disease. In patients with periodontitis, the prevalence of I and II degrees of severity is almost 4 times higher than the number of patients with an initial degree of the disease. Thus, the average value of the periodontal index for the group of patients with generalized periodontitis is 1.70+0.03 points. The value of this indicator according to the interpretation scale proposed by the author of the index is in the critical zone between the intervals of the onset of destructive periodontal lesions (0.7-1.9 points - the upper limit) and pronounced destructive lesions (1.6-5.0 points - the lower limit), the value of the periodontal index obtained by us allows us to characterize the periodontal lesion as "moderately severe" with a pronounced tendency to worsen.

The prevalence of generalized catarrhal gingivitis among all forms of periodontal disease was: a mild degree of 6.9% of people, an average degree - in 22.4, and a severe degree was diagnosed in 3.7% of the examined.

The average value of the gingivitis index for this group of patients was 1.5+0.04, which corresponds to moderate gingivitis.

The result of the study of the hygienic state of the oral cavity showed that a "poor" hygienic state was noted in 68% of the subjects (22% - "unsatisfactory", 20% - "poor", 26% - "very bad"), and only 32% were diagnosed with "satisfactory » hygienic condition of the oral cavity. The average value of the Fedorov-Volodkina index in Fedorov's modification is 2.8



+ 0.07 points, which can be assessed as "poor hygiene" of the oral cavity. There was no significant difference in the index assessment of oral hygiene among different age groups ($P>0.09$).

Thus, the hygienic index does not depend on the age of the examined, it is a reflection of a constantly acting irritating factor on the periodontal tissue. It is obvious that older age groups are distinguished by its longer temporary exposure to poor oral hygiene. The dynamics of the development of inflammatory periodontal diseases depending on the age of the examined was studied.

For this purpose, the subjects were divided into 3 age groups: I - 19-20 years old, II - 21-22 years old and III - 23-24 years old.

In the educated groups, both the frequency of occurrence of new diseases and the rate of deterioration of the periodontal condition in patients with wounds were studied.

As can be seen from the above data, the number of people with generalized periodontal diseases increases with age, the increase in new diseases for the first two years was 80 people per 1000 people examined, and for subsequent periods - 75 people.

Thus, for 4 years the number of patients with generalized periodontal disease increased by 155 people. The number of patients with generalized gingivitis at the beginning increased by 50 people (from 165 to 215), and then decreased by 55 people and amounted to 160 patients. A different picture was observed in the analysis of the increase in patients with generalized periodontitis. Over a two-year period, the number of patients with generalized periodontitis increased by 30 people, and over the next two years by 130 people, which is 1.7 times higher than the increase in patients with generalized periodontal diseases. Thus, in four years the number of patients with generalized periodontitis increased by 160 people. Considering the revealed dependence of the increase in the number of patients with generalized periodontitis and the decrease in the number of patients with gingivitis, it should be recognized that in the presence of a rather high negative background of local irritating factors, the development of generalized periodontitis in a significant proportion of individuals was a consequence. However, we cannot state with sufficient probability that the growth and development of periodontitis in the examined group is entirely the result of long-term catarrhal gingivitis, for the following reason: all the subjects were conscripts or conscripts in the army. Undoubtedly, a change in living conditions and nutrition cannot but cause stressful situations in a significant number of persons subjected to examination, which in turn could have an impact on the development of a dystrophic-inflammatory process in periodontal tissues in the course of long-term generalized gingivitis.

CONCLUSIONS: However, a rather high negative background of local irritating factors, such as poor oral hygiene, lack of treatment of periodontal tissue diseases, did not allow us to differentiate the cause of the increase in the incidence of generalized periodontitis.

It should also be noted that the process of development of more severe forms of both gingivitis and generalized periodontitis, with an unfavorable dental status, proceeds much faster than the increase in the number of new individuals with periodontal diseases.

The peak of development of more severe forms of gingivitis is at the age of 20-21 years, and periodontitis at 22-23 years. This is very important for planning therapeutic and preventive measures for young people, especially in organized groups.

1. Generalized periodontitis against the background of obesity is characterized by the intensity of clinical signs of periodontal pathology. Violation of microcirculation is caused by dysfunction of lipid metabolism, rheological properties of blood and hemostasis, which are accompanied by inflammatory and destructive changes in the periodontium. The overall severity of periodontal disease (IOT index) exceeds that of patients without background pathology by 24.36% ($P<0.05$).

2. In patients with obesity, the contents of the periodontal pocket showed an increase in the number of leukocytes up to 19-20, monocytes 5-7 in the field of view. Yeast-like fungi were found (in 70% of cases - mycelium, in 15.6% - spores). The epithelium of the oral cavity in 32.8% had signs of dystrophy and irritation, cells with signs of destruction (holonuclear) and layers of epithelium.

3. A significant increase in IL-8 (8 times, equal to 26.4 ± 2.13 pg/ml, $P<0.05$), increased synthesis of lactoferrin, alpha-2-macroglobulin in neutrophils (by 2.5 times - 4.4 ± 0.51 mg/ml, $P<0.05$), a decrease in the level of plasminogen (by 2 times - 6.0 ± 0.56 µg/ml, $P<0.05$), which leads to tissue hypoxia and destructive processes in periodontal tissues.

4. CGP against the background of obesity is marked by an imbalance in the blood lipid status and the hormonal status of mixed saliva, which is accompanied by a significant increase in the level of the obesity hormone leptin in the blood by 18 times (68.2 ± 7.11 ng/ml, $P<0.05$); a decrease in the level of free testosterone in saliva by 2 times (20.3 ± 1.96 pg/ml, $P<0.05$), progesterone - by 1.3 times (0.07 ± 0.001 , $P<0.05$) and an increase estradiol content by 1.8 times (9.36 ± 0.83 , $P<0.05$). These changes contribute to the violation of trophism,



intensification of the inflammatory process and destruction of the periodontium.

5. In CGP aggravated by obesity in blood plasma, there is a significant increase in cholesterol levels by 1.7 times (7.89 ± 0.53 mmol/l, $P < 0.05$), triglycerides by 3.5 times (2.89 ± 0.09 mmol/l, $P < 0.05$), as well as a significant 1.9-fold decrease in the content of phospholipids (1.44 ± 0.07 mmol/l, $P < 0.05$), which leads to increased desquamation of wall endotheliocytes vessels by 2 times ($4.68 \pm 0.31 \cdot 10^4$ /l, $P < 0.05$); there was a 2.3-fold increase in the amount of active forms of platelets ($28.4 \pm 1.61\%$, $P < 0.05$); All these changes make a significant contribution to periodontal microcirculation disorders.

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