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**PERIODONTAL PATHOLOGY AMONG STUDENTS
OF THE REPUBLIC OF MORDOVIA**

Abstract. The study of a dental disease rate among students was driven by the necessity to determine their needs in various types of dental care and develop measures for the improvement of the dental status of the young people. The goal of the study was to assess the need for periodontal therapy and find out a connection between the state of oral hygiene and severity of periodontal tissues among medical students.

Key words: periodontal pathology, periodontal therapy.

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**НУЖДАЕМОСТЬ В ЛЕЧЕНИИ ЗАБОЛЕВАНИЙ ПАРОДОНТА
СРЕДИ СТУДЕНТОВ РЕСПУБЛИКИ МОРДОВИЯ**

Аннотация. Изучение стоматологической заболеваемости студентов необходимо для определения их потребности в различных видах стоматологической помощи и последующей разработке мероприятий по улучшению стоматологического статуса молодежи. Целью работы стала оценка нуждаемости в лечении заболеваний пародонта и выявление взаимосвязи уровня гигиены полости рта и степени тяжести поражения тканей пародонта среди студентов-медиков.

Ключевые слова: патология пародонта, пародонтальная терапия.

Introduction. Current official statistical data about the incidence of dental diseases among the student youth are far from being objective. There are a number of studies devoted to the prevalence of oral-cavity diseases among young people [2; 4; 7]. In our opinion, this contingent deserves larger attention, as it is rather numerous. Saransk has long been considered a city of students and it has a great potential for providing dental care.

In recent studies, the authors have noted a tendency to growing severity of periodontal diseases. A great number of people of different ages suffer from various forms of periodontal diseases that are the main cause of tooth loss. The inflammatory pathology of the periodontium deteriorates the quality of life; the more active the inflammatory process, the worse the life quality. [5; 6; 7] The psychological (emotional) status of patients is also affected, particularly in severe forms of inflammatory periodontal diseases and this is also associated with the quality of life [3; 1].

For this reason, early diagnostics and preventive-therapeutic measures with respect to periodontal diseases are in need of improvement for people of different ages [4; 6].

The goal of the study is to assess the need for treatment of periodontal diseases among the students of National Research Mordovia State University.

Material and methods. Fifty-eight students of the Medical institute of National Research Mordovia State University were examined for mentioned medical conditions, 31 residents of Mordovia and 27 residents of other regions of Russia.

Clinical and statistical methods are used in the study. The clinical method involved the study of dental status: determination of the J. C. Green – J. A. Vermillion's simplified oral hygiene index (1964), index of the severity and spreading of inflammation (PMA), a need periodontal inflammation therapy (CPITN). The obtained findings were statistically processed.

Results and discussion. The conducted dental inspection showed that the mean value of simplified oral hygiene index (OHI-S) in the students was 0.94. This value indicates good hygiene in the studied group and presence of slight plaque on the teeth. Good oral hygiene was found in 31 students under study.

Dental plaque and calculus were assessed separately. According to the findings, the mean value of dental plaque in the studied group was 0.8 which corresponds to an average hygiene level. The index of dental calculus was over 1.6 which corresponds to an average level of oral hygiene.

After learning about the obtained oral hygiene index, students often say that they have changed methods of tooth brushing thanks to the knowledge and skills acquired in the course of training. Many of them say that they recommend standard methods of tooth brushing to their patients.

The students with a considerable amount of plaque said they knew about the standards of oral hygiene, but did not follow recommendations on the time and method of cleaning teeth.

The evaluation of the tissue condition in the periodontium (PMA-index) recorded mild inflammation in 28 (48.3%) students. In 19 patients (32.8%) the index corresponded to a moderate form of gingivitis. Five students (8.6%) had gingivitis in a severe form. Six students (10.3%) had no signs of inflammation (Fig. 1).

The study found that approximately 90% of the inspected students had gingivitis.

A comparative study of the gingivitis index and a degree of gingivitis showed the following correlation. In individuals with a mild form of inflammation the oral hygiene index was 1.58 on average (satisfactory). In a group with severe gingivitis the mean value of the Green-Vermillion's index was 3.24.

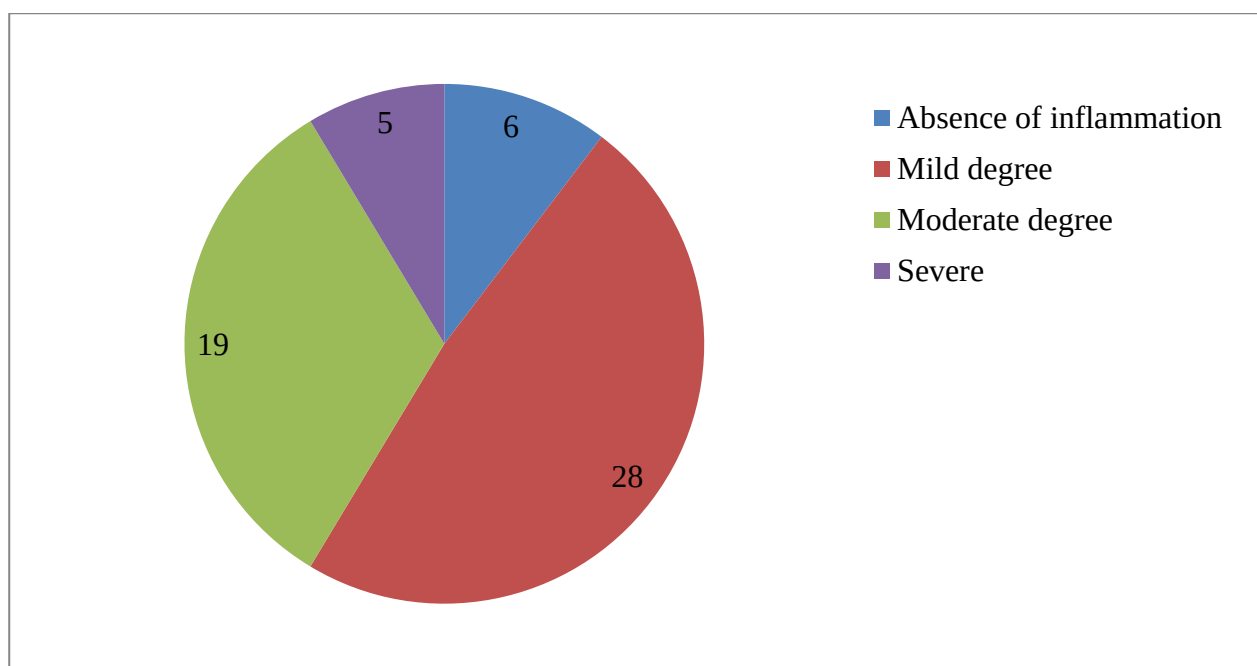


Fig. 1. Severity degree of gingivitis.

We have found that severity of gingivitis reliably depends on a level of oral hygiene. Although, there were few cases with no inflammatory response in the gum to plaque in the neck part of the tooth. There were also opposite cases when inflammation was noted in the marginal gum at a good level of oral hygiene (this explains a rather low value of OHI-S in the group with severe gingivitis).

Assessment of the periodontium condition found that periodontal lesions were absent in 12 individuals (20.6%). Bleeding of gums was noted in 24 students (41.2%). Dental calculus was found in 18 patients (31%) predominantly in supragingival area. The calculus was usually located near the ducts of the salivary glands, predominantly on the lingual surface of the frontal teeth. Periodontal pockets, 4 to 5mm deep were found in 4 students (Fig.2). These patients noted burdening of the family history with periodontitis.

The prevalence of periodontal diseases in the studied group comprises 79%. Most of the patients are in need of both professional oral hygiene and instructions on personal hygiene of the mouth. Many students said they were aware of the standards of tooth cleaning and of the time recommended for brushing but they did not keep to the rules. The comparative analysis of the OHI-S and CPITN indices has revealed an association between oral hygiene and severity of periodontal disease. This is another evidence of a significant role of microflora in the etiology of periodontitis. The revealed association justifies the need for timely conducted professional oral hygiene and rise of interest to this kind of service.

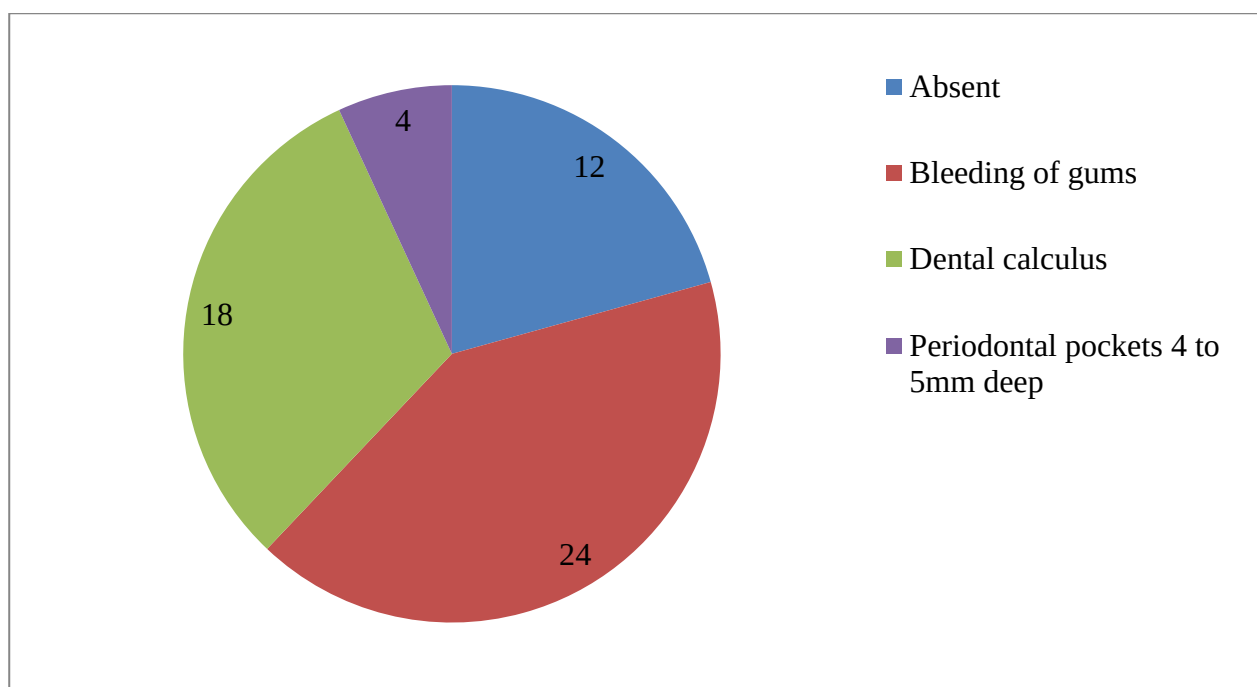


Fig. 2. Signs of periodontal lesions.

Conclusions. Lesions of periodontal tissues are widely spread among students. The dental health of medical students is a screening reflection of the dental status of all the student youth in the Republic of Moldova. In view of this, during the inspection of young patients the doctors should pay particular attention to the periodontal complex. Index-based assessment of severity should become mandatory. This method does not take much time; it is not complicated in use and inexpensive. It is fairly informative and allows to make up a plan of further multimodal examination and treatment.

In most cases, severity of periodontal lesions correlates with the amount of dental deposits, i.e. with the hygiene level. On the one hand, this observation confirms a significant role of microflora in the development of inflammatory diseases. On the other hand, it substantiates recommendations that any dental therapy, aside from urgent aid, should start with professional oral hygiene. Instructions on personal oral hygiene, controlled tooth brushing motivation of interest to regular and careful dental care are also of importance.

We believe that a relative (not absolute) association between the level of oral hygiene and presence of periodontal diseases can be explained by a young age of our patients, absence of severe and semi-severe general somatic pathology in this age-group and consequently, by an adequate immune defence.

Timly and high-quality removal of dental deposits is a key method of preventing inflammatory periodontal diseases (although not the only one). The removal of dental deposits is also the first stage of complex therapy. In a number of cases this procedure is sufficient for

promoting regression of the disease in a mild form. As for the drug therapy, its administration is feasible only after conducting professional hygienic procedures.

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