

# GEORGIAN MEDICAL NEWS

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ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии  
საქართველოს სამედიცინო სიახლენი

## GEORGIAN MEDICAL NEWS

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**GMN: Georgian Medical News** is peer-reviewed, published monthly journal committed to promoting the science and art of medicine and the betterment of public health, published by the GMN Editorial Board since 1994. GMN carries original scientific articles on medicine, biology and pharmacy, which are of experimental, theoretical and practical character; publishes original research, reviews, commentaries, editorials, essays, medical news, and correspondence in English and Russian.

GMN is indexed in MEDLINE, SCOPUS, PubMed and VINITI Russian Academy of Sciences. The full text content is available through EBSCO databases.

**GMN: Медицинские новости Грузии** - ежемесячный рецензируемый научный журнал, издаётся Редакционной коллегией с 1994 года на русском и английском языках в целях поддержки медицинской науки и улучшения здравоохранения. В журнале публикуются оригинальные научные статьи в области медицины, биологии и фармации, статьи обзорного характера, научные сообщения, новости медицины и здравоохранения. Журнал индексируется в MEDLINE, отражён в базе данных SCOPUS, PubMed и ВИНТИ РАН. Полнотекстовые статьи журнала доступны через БД EBSCO.

**GMN: Georgian Medical News** – საქართველოს სამედიცინო სიახლენი – არის ყოველთვიური სამეცნიერო სამედიცინო რეცენზირებადი ჟურნალი, გამოიცემა 1994 წლიდან, წარმოადგენს სარედაქციო კოლეგიისა და აშშ-ის მეცნიერების, განათლების, ინდუსტრიის, ხელოვნებისა და ბუნებისმეტყველების საერთაშორისო აკადემიის ერთობლივ გამოცემას. GMN-ში რუსულ და ინგლისურ ენებზე ქვეყნდება ექსპერიმენტული, თეორიული და პრაქტიკული ხასიათის ორიგინალური სამეცნიერო სტატიები მედიცინის, ბიოლოგიისა და ფარმაციის სფეროში, მიმოხილვითი ხასიათის სტატიები.

ჟურნალი ინდექსირებულია MEDLINE-ის საერთაშორისო სისტემაში, ასახულია SCOPUS-ის, PubMed-ის და ВИНТИ РАН-ის მონაცემთა ბაზებში. სტატიების სრული ტექსტი ხელმისაწვდომია EBSCO-ს მონაცემთა ბაზებშიდან.

### WEBSITE

[www.geomednews.com](http://www.geomednews.com)

## К СВЕДЕНИЮ АВТОРОВ!

При направлении статьи в редакцию необходимо соблюдать следующие правила:

1. Статья должна быть представлена в двух экземплярах, на русском или английском языках, напечатанная через **полтора интервала на одной стороне стандартного листа с шириной левого поля в три сантиметра**. Используемый компьютерный шрифт для текста на русском и английском языках - **Times New Roman (Кириллица)**, для текста на грузинском языке следует использовать **AcadNusx**. Размер шрифта - **12**. К рукописи, напечатанной на компьютере, должен быть приложен CD со статьей.

2. Размер статьи должен быть не менее десяти и не более двадцати страниц машинописи, включая указатель литературы и резюме на английском, русском и грузинском языках.

3. В статье должны быть освещены актуальность данного материала, методы и результаты исследования и их обсуждение.

При представлении в печать научных экспериментальных работ авторы должны указывать вид и количество экспериментальных животных, применявшиеся методы обезболивания и усыпления (в ходе острых опытов).

4. К статье должны быть приложены краткое (на полстраницы) резюме на английском, русском и грузинском языках (включающее следующие разделы: цель исследования, материал и методы, результаты и заключение) и список ключевых слов (key words).

5. Таблицы необходимо представлять в печатной форме. Фотокопии не принимаются. **Все цифровые, итоговые и процентные данные в таблицах должны соответствовать таковым в тексте статьи**. Таблицы и графики должны быть озаглавлены.

6. Фотографии должны быть контрастными, фотокопии с рентгенограмм - в позитивном изображении. Рисунки, чертежи и диаграммы следует озаглавить, пронумеровать и вставить в соответствующее место текста **в tiff формате**.

В подписях к микрофотографиям следует указывать степень увеличения через окуляр или объектив и метод окраски или импрегнации срезов.

7. Фамилии отечественных авторов приводятся в оригинальной транскрипции.

8. При оформлении и направлении статей в журнал МНГ просим авторов соблюдать правила, изложенные в «Единых требованиях к рукописям, представляемым в биомедицинские журналы», принятых Международным комитетом редакторов медицинских журналов - <http://www.spinesurgery.ru/files/publish.pdf> и [http://www.nlm.nih.gov/bsd/uniform\\_requirements.html](http://www.nlm.nih.gov/bsd/uniform_requirements.html) В конце каждой оригинальной статьи приводится библиографический список. В список литературы включаются все материалы, на которые имеются ссылки в тексте. Список составляется в алфавитном порядке и нумеруется. Литературный источник приводится на языке оригинала. В списке литературы сначала приводятся работы, написанные знаками грузинского алфавита, затем кириллицей и латиницей. Ссылки на цитируемые работы в тексте статьи даются в квадратных скобках в виде номера, соответствующего номеру данной работы в списке литературы. Большинство цитированных источников должны быть за последние 5-7 лет.

9. Для получения права на публикацию статья должна иметь от руководителя работы или учреждения визу и сопроводительное отношение, написанные или напечатанные на бланке и заверенные подписью и печатью.

10. В конце статьи должны быть подписи всех авторов, полностью приведены их фамилии, имена и отчества, указаны служебный и домашний номера телефонов и адреса или иные координаты. Количество авторов (соавторов) не должно превышать пяти человек.

11. Редакция оставляет за собой право сокращать и исправлять статьи. Корректур авторам не высылаются, вся работа и сверка проводится по авторскому оригиналу.

12. Недопустимо направление в редакцию работ, представленных к печати в иных издательствах или опубликованных в других изданиях.

**При нарушении указанных правил статьи не рассматриваются.**

## REQUIREMENTS

Please note, materials submitted to the Editorial Office Staff are supposed to meet the following requirements:

1. Articles must be provided with a double copy, in English or Russian languages and typed or computer-printed on a single side of standard typing paper, with the left margin of 3 centimeters width, and 1.5 spacing between the lines, typeface - **Times New Roman (Cyrillic)**, print size - 12 (referring to Georgian and Russian materials). With computer-printed texts please enclose a CD carrying the same file titled with Latin symbols.

2. Size of the article, including index and resume in English, Russian and Georgian languages must be at least 10 pages and not exceed the limit of 20 pages of typed or computer-printed text.

3. Submitted material must include a coverage of a topical subject, research methods, results, and review.

Authors of the scientific-research works must indicate the number of experimental biological species drawn in, list the employed methods of anesthetization and soporific means used during acute tests.

4. Articles must have a short (half page) abstract in English, Russian and Georgian (including the following sections: aim of study, material and methods, results and conclusions) and a list of key words.

5. Tables must be presented in an original typed or computer-printed form, instead of a photocopied version. **Numbers, totals, percentile data on the tables must coincide with those in the texts of the articles.** Tables and graphs must be headed.

6. Photographs are required to be contrasted and must be submitted with doubles. Please number each photograph with a pencil on its back, indicate author's name, title of the article (short version), and mark out its top and bottom parts. Drawings must be accurate, drafts and diagrams drawn in Indian ink (or black ink). Photocopies of the X-ray photographs must be presented in a positive image in **tiff format**.

Accurately numbered subtitles for each illustration must be listed on a separate sheet of paper. In the subtitles for the microphotographs please indicate the ocular and objective lens magnification power, method of coloring or impregnation of the microscopic sections (preparations).

7. Please indicate last names, first and middle initials of the native authors, present names and initials of the foreign authors in the transcription of the original language, enclose in parenthesis corresponding number under which the author is listed in the reference materials.

8. Please follow guidance offered to authors by The International Committee of Medical Journal Editors guidance in its Uniform Requirements for Manuscripts Submitted to Biomedical Journals publication available online at: [http://www.nlm.nih.gov/bsd/uniform\\_requirements.html](http://www.nlm.nih.gov/bsd/uniform_requirements.html)  
[http://www.icmje.org/urm\\_full.pdf](http://www.icmje.org/urm_full.pdf)

In GMN style for each work cited in the text, a bibliographic reference is given, and this is located at the end of the article under the title "References". All references cited in the text must be listed. The list of references should be arranged alphabetically and then numbered. References are numbered in the text [numbers in square brackets] and in the reference list and numbers are repeated throughout the text as needed. The bibliographic description is given in the language of publication (citations in Georgian script are followed by Cyrillic and Latin).

9. To obtain the rights of publication articles must be accompanied by a visa from the project instructor or the establishment, where the work has been performed, and a reference letter, both written or typed on a special signed form, certified by a stamp or a seal.

10. Articles must be signed by all of the authors at the end, and they must be provided with a list of full names, office and home phone numbers and addresses or other non-office locations where the authors could be reached. The number of the authors (co-authors) must not exceed the limit of 5 people.

11. Editorial Staff reserves the rights to cut down in size and correct the articles. Proof-sheets are not sent out to the authors. The entire editorial and collation work is performed according to the author's original text.

12. Sending in the works that have already been assigned to the press by other Editorial Staffs or have been printed by other publishers is not permissible.

**Articles that Fail to Meet the Aforementioned  
Requirements are not Assigned to be Reviewed.**

## ავტორთა საქურაღებოლ!

რედაქციაში სტატიის წარმოდგენისას საჭიროა დაიცვათ შემდეგი წესები:

1. სტატია უნდა წარმოადგინოთ 2 ცალად, რუსულ ან ინგლისურ ენებზე დაბეჭდილი სტანდარტული ფურცლის 1 გვერდზე, 3 სმ სიგანის მარცხენა ველისა და სტრიქონებს შორის 1,5 ინტერვალის დაცვით. გამოყენებული კომპიუტერული შრიფტი რუსულ და ინგლისურენოვან ტექსტებში - **Times New Roman (Кириллица)**, ხოლო ქართულენოვან ტექსტში საჭიროა გამოვიყენოთ **AcadNusx**. შრიფტის ზომა – 12. სტატიას თან უნდა ახლდეს CD სტატიით.

2. სტატიის მოცულობა არ უნდა შეადგენდეს 10 გვერდზე ნაკლებს და 20 გვერდზე მეტს ლიტერატურის სიის და რეზიუმეების (ინგლისურ, რუსულ და ქართულ ენებზე) ჩათვლით.

3. სტატიაში საჭიროა გაშუქდეს: საკითხის აქტუალობა; კვლევის მიზანი; საკვლევი მასალა და გამოყენებული მეთოდები; მიღებული შედეგები და მათი განსჯა. ექსპერიმენტული ხასიათის სტატიების წარმოდგენისას ავტორებმა უნდა მიუთითონ საექსპერიმენტო ცხოველების სახეობა და რაოდენობა; გაუტკივარებისა და დაძინების მეთოდები (მწვავე ცდების პირობებში).

4. სტატიას თან უნდა ახლდეს რეზიუმე ინგლისურ, რუსულ და ქართულ ენებზე არანაკლებ ნახევარი გვერდის მოცულობისა (სათაურის, ავტორების, დაწესებულების მითითებით და უნდა შეიცავდეს შემდეგ განყოფილებებს: მიზანი, მასალა და მეთოდები, შედეგები და დასკვნები; ტექსტუალური ნაწილი არ უნდა იყოს 15 სტრიქონზე ნაკლები) და საკვანძო სიტყვების ჩამონათვალი (key words).

5. ცხრილები საჭიროა წარმოადგინოთ ნაბეჭდი სახით. ყველა ციფრული, შემაჯამებელი და პროცენტული მონაცემები უნდა შეესაბამებოდეს ტექსტში მოყვანილს.

6. ფოტოსურათები უნდა იყოს კონტრასტული; სურათები, ნახაზები, დიაგრამები - დასათაურებული, დანომრილი და სათანადო ადგილას ჩასმული. რენტგენოგრამების ფოტოასლები წარმოადგინეთ პოზიტიური გამოსახულებით **tiff** ფორმატში. მიკროფოტოსურათების წარწერებში საჭიროა მიუთითოთ ოკულარის ან ობიექტივის საშუალებით გადიდების ხარისხი, ანათალების შედეგების ან იმპრეგნაციის მეთოდი და აღნიშნოთ სურათის ზედა და ქვედა ნაწილები.

7. სამამულო ავტორების გვარები სტატიაში აღინიშნება ინიციალების თანდართვით, უცხოურისა – უცხოური ტრანსკრიპციით.

8. სტატიას თან უნდა ახლდეს ავტორის მიერ გამოყენებული სამამულო და უცხოური შრომების ბიბლიოგრაფიული სია (ბოლო 5-8 წლის სიღრმით). ანბანური წყობით წარმოდგენილ ბიბლიოგრაფიულ სიაში მიუთითეთ ჯერ სამამულო, შემდეგ უცხოელი ავტორები (გვარი, ინიციალები, სტატიის სათაური, ჟურნალის დასახელება, გამოცემის ადგილი, წელი, ჟურნალის №, პირველი და ბოლო გვერდები). მონოგრაფიის შემთხვევაში მიუთითეთ გამოცემის წელი, ადგილი და გვერდების საერთო რაოდენობა. ტექსტში კვადრატულ ფხიხლებში უნდა მიუთითოთ ავტორის შესაბამისი N ლიტერატურის სიის მიხედვით. მიზანშეწონილია, რომ ციტირებული წყაროების უმეტესი ნაწილი იყოს 5-6 წლის სიღრმის.

9. სტატიას თან უნდა ახლდეს: ა) დაწესებულების ან სამეცნიერო ხელმძღვანელის წარდგინება, დამოწმებული ხელმოწერითა და ბეჭდით; ბ) დარგის სპეციალისტის დამოწმებული რეცენზია, რომელშიც მითითებული იქნება საკითხის აქტუალობა, მასალის საკმაობა, მეთოდის სანდოობა, შედეგების სამეცნიერო-პრაქტიკული მნიშვნელობა.

10. სტატიის ბოლოს საჭიროა ყველა ავტორის ხელმოწერა, რომელთა რაოდენობა არ უნდა აღემატებოდეს 5-ს.

11. რედაქცია იტოვებს უფლებას შეასწოროს სტატია. ტექსტზე მუშაობა და შეჯერება ხდება საავტორო ორიგინალის მიხედვით.

12. დაუშვებელია რედაქციაში ისეთი სტატიის წარდგენა, რომელიც დასაბეჭდად წარდგენილი იყო სხვა რედაქციაში ან გამოქვეყნებული იყო სხვა გამოცემებში.

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## EVALUATION OF THE CLINICAL CONDITION OF THE ORAL CAVITY BEFORE ADHESIVE SPLINTING OF MOVABLE TEETH

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### Abstract.

The purpose of the study is to analyze the condition of the oral cavity tissues to choose the method of adhesive splinting of the anterior teeth. Increasing the efficiency of patient curation strategies and tactics based on forecasting the functional capabilities of the dental and periodontal complex.

In the period from 2017 and 2021, 81 male and female patients aged 35 to 45 years were examined and treated for preventive examination and rehabilitation at the University Clinic Educational and Medical Center of Bukovinian State Medical University and diagnosed with periodontitis of varying severity. The following criteria were taken into account when forming patient groups: type of bite, absence of foci of chronic infection in the body, absence of multiple lesions of hard dental tissues, depth of periodontal pocket. During the examination, attention was paid to the shape of the dental arch, the inclination of the crowns of the teeth in the anterior region, the location of individual teeth, occlusion, the state of the oral vestibule (places of attachment of the transitional fold, depth, presence of gingival recession).

Among the pathological conditions that interfere with splinting, the following were identified: traumatic occlusion (95.7 %), anomalies in the location of individual teeth, fan-shaped tooth separation, crowded teeth (73.5 %), pathology of the oral vestibule (46.7%), and the third degree of tooth mobility. These pathological conditions required preliminary orthodontic preparation or surgical treatment.

The predominant complaints in periodontal tissue diseases were gum bleeding when brushing teeth (82.7 %), tooth mobility of varying degrees (80.2 %), bad breath (40.7 %), and tooth bleeding when eating (30.8%). Oral hygiene was not maintained by 45.6 % of the surveyed. The pathology of the attachment of the transitional fold of the oral cavity was detected in 46.7 % of patients, that is, almost half of the examined. Abnormalities of the position of individual teeth were found in 73.5 % of the examined. Traumatic occlusion was detected in 95.7 % of the subjects.

**Key words.** Periodontal tissue diseases, depth of the anterodorsal cavity, abnormal position of the teeth, traumatic occlusion, gingival bleeding, tooth mobility.

### Introduction.

According to WHO experts, the prevalence of periodontal tissue diseases reaches 98%. Among the most common dental diseases, periodontitis is one of the most common. Therefore, the tendency to progress, its diverse effects on the body, as well as frequent relapses make this pathological condition one of the

most pressing problems of modern dentistry [1,2]. Local factors play an important role in the occurrence of periodontal tissue diseases, such as: abnormal attachment of the frenulum of the lips, tongue, shallow anterodorsum of the oral cavity, abnormalities of the bite and individual teeth, traumatic occlusion, incorrect orthopedic appliances, etc. [3-5]. These factors lead to impaired blood circulation in periodontal tissues, functional overload of teeth, their pathological mobility, and eventually their premature loss [6]. As the authors point out [7-9], abnormalities in the position of the teeth are accompanied by functional traumatic overload of periodontal tissues, which makes it difficult or even impossible to carry out effective orthopedic treatment without first correcting dentoalveolar anomalies.

In addition, crowding of teeth makes it difficult for patients to clean them properly, which contributes to the formation of biofilm and tartar, which lead to inflammation and destruction of the periodontal tissues [10-12]. Therefore, the choice of treatment method depends on the pathology detected during the examination [13,14]. At the same time, such pathology can be prevented, or a positive result can be obtained with its complex treatment only through rational modern and timely orthodontic treatment [15,16].

**The purpose of the study.** To analyze the condition of the oral cavity tissues to choose the method of adhesive splinting of the anterior teeth. Increasing the efficiency of patient curation strategies and tactics based on forecasting the functional capabilities of the dental and periodontal complex.

### Materials and Methods.

To achieve the goal, 81 patients, aged 35 to 45 years, male and female, with a diagnosis of periodontitis of varying degrees of severity, were examined and treated. When forming groups of patients, the following criteria were taken into account: in all patients, the presence of dental plaque and tartar in the area of 6 teeth was determined: on the vestibular surface of 16, 11, 26 and 31 and on the lingual surface of 36, 46. for greater visibility, the plaque was stained with Schiller-Pysarev solution. The papillary-marginal-alveolar index reflects the degree and prevalence of inflammation in periodontal tissues. For better visualization of the inflammation, the mucous membrane of the gums is stained with Schiller-Pysarev solution, to clarify the diagnosis and assess the condition of the cortical layer of the tops of the interdental partitions, an X-ray examination was performed, which included orthopantomography and intraoral X-ray imaging. In our study, the orthopantomograph "Planmecca ProOne" (Finland), occlusal type, was used. Patients with severe somatic pathology and severe destructive forms of periodontitis were excluded from the study. Stabilization of tooth rows with

splints based on reinforcing and adhesive technology was the final stage of complex treatment of periodontal tissue diseases, which included normalization of oral hygiene, treatment and observation by a periodontist, as well as therapeutic and surgical measures.

Clinical research was conducted according to generally accepted methods. During the examination of the patients, an examination of the teeth and dental rows was performed, the type of bite, dental formula, anomalies in the position of individual teeth, the presence of tooth-alveolar deformations, increased wear of the teeth, wedge-shaped defects, hard tissue defects, the character of the closing of the dental rows (occlusion), the assessment of occlusal contacts, determination of the type of resorption of the alveolar bone, attachment and expression of frenulum's of the lips and tongue, buccal-alveolar folds, depth of the vestibule of the cavity. The data of the patient's examination were entered into the developed examination card of the dental patient and recorded in the medical record of the dental patient, form No. 043/o.

The study was conducted in compliance with the basic principles of the Guidelines for Good Clinical Practice (1996), the Council of Europe Convention on Human Rights and Biomedicine (1997), the Helsinki Declaration of the World Medical Association on the Ethical Principles of Medical Research Involving Humans (1964-2000), and the Order of the Ministry of Health of Ukraine (1964-2000) and Order of the Ministry of Health of Ukraine No. 281 dated November 1, 2000, approved by the Bioethics Commission of Bukovinian State Medical University (protocol No. 25 dated November 13, 2019).

The obtained data were statistically processed using the methods of descriptive statistics using Microsoft Office Excel 2010 spreadsheets. The sample mean, standard deviation and mean error were calculated as quantitative indicators. In case of normal distribution of quantitative indicators, Student's t-test was used for their comparison. The difference between the analyzed indicators was considered statistically significant at a significance level of 0.05 (error probability of 5% ( $p < 0.05$ )).

## Results and Discussion.

Based on the clinical examination of 81 patients at the stage of preparation for splinting of the anterior group of teeth, the following was found. The main complaints were bleeding gums, pain or discomfort in the gums, bad breath, varying degrees of pathological tooth mobility, tooth displacement, and hypersensitivity. Thus, among the examined patients, 67 (82.7 %) complained of gum bleeding during brushing, 25 (30.8 %) - while eating, 65 (80.2 %) - of tooth mobility, 33 (40.7%) - of bad breath, 17 (20.9 %) - pain or discomfort in the gums, 14 (17.2 %) - fan-shaped teeth separation, 11 (13.5 %) - tooth displacement, nine (11.1 %) people - varying degrees of tooth hyperesthesia.

The survey found that 31 subjects (38.2 %) had sought help from a periodontist, 28 people (34.5%) believed that they had been ill for more than 10 years, and 22 (27.1 %) - for no more than 5 years. In 50 (61.7 %) of the subjects, previous treatment consisted of professional oral hygiene and topical therapy in the form of drug applications, in 12 (14.8 %) people

- physiotherapy. All patients who had previously undergone treatment by a periodontist considered it successful, and the duration of its effectiveness in terms of the absence of gum bleeding, discomfort, and bad breath ranged from 6 months to 12 months.

Among those surveyed, there were no people with harmful occupational factors or bad habits, 34 (41.9 %) smoked cigarettes. When patients were interviewed about their personal oral hygiene, it was found that 17 (20.9 %) people brush their teeth 2 times a day, 24 (29.6 %) - once a day, and 13 (16.0 %) - brush their teeth irregularly (several times a week). The majority of respondents used only a toothbrush and toothpaste, six (7.40 %) used dental floss and floss, and eight (9.87 %) used only rinses.

When examining the anterodorsum of the oral cavity (Figure 1), a short, massive frenulum of the upper lip was found in eight (9.81 %) patients, the lower lip - in nine (11.1 %), and the tongue - in five (6.17 %).

The presence of massive cords was detected in 16 (19.7 %) patients. 11 (13.5 %) people had previously been operated on for abnormalities of the attachment of the frenulum of the lips and tongue. Thus, pathology of the attachment of the transitional fold was detected in 46.7 % of patients, i.e., almost half of the examined (Table 1).

During the examination of the gingival margin, congestive hyperemia of the free and attached parts of the gingiva was noted, the interdental gingival papillae were loose, swollen, and bled during probing. Edema and hyperemia were detected in 37 (45.6 %) patients, and hyperemia with congestion in 18 (22.2 %) patients. Retraction of the gingival margin up to 4 mm was detected in 21 (25.9%) patients in the anterior group of teeth

**Table 1.** Pathological conditions that interfere with splinting ( $M \pm m$ ).

Pathological state	n – 81	
	%	abs.
Traumatic occlusion %	95,74	78
Anomalies in the location of individual teeth %	73,52	59
Pathology of the vestibule of the oral cavity %	46,71	37
Massive buccal frenums %	19,75	16
Short frenum of the lower lip %	11,13	9
Short frenum of the upper lip %	9,81	8
Short lingual frenum %	6,17	5



**Figure 1.** Patient K., 41 years old. Shallow vestibule of the oral cavity.

of the lower jaw, in nine (11.1 %) - in the anterior group of teeth of the upper jaw. Gingival recession of Miller grades 1 and 2 (Figure 2) was determined in four patients (4.98 %), mild recession - in seven (8.64 %) patients, with two cases (2.46 %) teeth being removed from the palatal position, and seven cases (8.64 %) being vestibular.

Tooth mobility of the I-II degree was detected in 35 (71.4 %) patients, in 14 (28.6 %) patients it corresponded to the II-III degree, and periodontal pockets with a depth of more than 5 mm were determined without purulent discharge from periodontal pockets. Gingival bleeding during probing was detected in all (100 %) of the subjects.

The examination revealed that all patients (100 %) needed professional oral hygiene. Thus, in 28 (34.5 %) of the examined patients, mineralized supragingival plaque was detected, in 22 (27.1 %) - mineralized subgingival plaque, in 21 (25.9 %) - soft



**Figure 2.** Patient T., 20 years old, Miller class II gingival recession in the area of the 4th tooth (on the background of traumatic occlusion).



**Figure 3.** Patient R., 37 years old. Progenitorial ratio of the jaws (mesial).



**Figure 4.** Patient B., 45 years old. Prognathic jaw relationship (distal). Trims between the lateral incisors of the maxilla. Fan-shaped tooth discrepancy. Soft dental plaque.



**Figure 5.** Anomalies in the position of the lateral incisors of the upper jaw.



**Figure 6.** Crowding of the front teeth of the lower jaw.

plaque, in ten (12.4 %) - pigmented plaque.

When assessing the state of occlusion in 42 (54.2 %) patients, various forms of occlusion disorders were detected: in 21 (25.9 %) patients - deep bite, in 16 (19.7 %) - distal bite, in five (6.17 %) - mesial bite, in two (2.46 %) - crossbite (Figure 3).

Abnormalities of the position of individual teeth were found in 53 (65.4 %) patients, three teeth in 23 (28.3 %), diastema in 13 (15.9 %), crowding of the teeth of the lower jaw in 12 (14.8 %), fan-shaped separation of the teeth of the upper jaw in seven (8.65 %). Traumatic occlusion was detected in 77 (95.7 %) of the subjects (Figures 4-6).

During the examination of the dentition, wedge-shaped (abfraction) defects were detected in 56 (69.3 %) patients, carious lesions in eight (9.87 %), and pathological abrasion in six (7.40 %). Surgical rehabilitation of the oral cavity was required in 17 patients (20.9 %), prosthetics - in 23 (28.3 %), in 15 (18.5 %) of the examined patient's lateral defects of the dentition were replaced with fixed bridges with bilateral support, in eight (9.87 %) - with partial removable lamellar and arch prostheses.

Thus, according to the data obtained as a result of the study, among 81 patients with periodontal tissue diseases, 55 (67.9 %) patients required preliminary orthodontic treatment, which corresponds to the data of previous studies [6,7,10].

Taking into account the state of the oral cavity of patients with periodontal tissue diseases and consulting related specialists (dental surgeon, orthopedist, orthodontist and hygienist) before splinting movable teeth is the key to their successful comprehensive treatment.

## Conclusion.

1. Taking into account the state of the oral cavity of patients with periodontal tissue diseases and consulting related specialists (dental surgeon, periodontologist, orthodontist and hygienist) before splinting of movable teeth is the key to their successful comprehensive treatment.

2. The placement of the reinforcing element of the adhesive splint was recommended depending on the type of bite, bone resorption level and level of personal hygiene.

3. At the orthognathic bite and deep incisal overlap the splint was placed on the lingual side. In the case of straight bite, distal and mesial occlusion and bone resorption up to ¼ of the interalveolar bone height it was placed on the vestibular side.

### Prospects for further research.

Taking into account the research conducted by us on the state of the oral cavity of patients with periodontal tissue diseases, a mandatory stage is the consultation of related specialists (periodontologist, dental surgeon, orthopedist, orthodontist) and their appropriate treatment. After all, complex treatment before splinting of movable teeth is the key to a successful result.

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### Conflict of interest.

The authors of this study confirm that the research and publication of the results were not associated with any conflicts regarding commercial or financial relations, relations with organizations and/or individuals who may have been related to the study, and interrelations of coauthors of the article.

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## РЕЗЮМЕ ОЦЕНКА КЛИНИЧЕСКОГО СОСТОЯНИЯ ПОЛОСТИ РТА ПЕРЕД АДГЕЗИВНЫМ ШИНИРОВАНИЕМ ПОДВИЖНЫХ ЗУБОВ

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Цель исследования - проанализировать состояние тканей полости рта для выбора метода адгезивного шинирования фронтальных зубов. Повышение эффективности стратегии и тактики курации пациентов на основе прогнозирования функциональных возможностей зубопародонтального комплекса.

В период 2017 по 2021 годы проведено обследование и лечение 81 пациента в возрасте от 35 до 45 лет мужского и женского пола, которые обратились с целью профилактического осмотра и санации в учебно-лечебный центр "Университетская клиника" Буковинского государственного медицинского университета и которым был установлен диагноз пародонтит различной степени

тяжести. При формировании групп пациентов учитывались следующие критерии: вид прикуса, отсутствие очагов хронической инфекции в организме, отсутствие множественных поражений твердых тканей зубов, глубина пародонтального кармана. При обследовании обращали внимание на форму зубной дуги, наклон коронок зубов во фронтальном участке, расположение отдельных зубов, прикус, состояние преддверия полости рта (места прикрепления переходной складки, глубину, наличие рецессии десен).

Среди патологических состояний, которые мешают проведению шинирования, были выявлены: травматическая окклюзия (95,7%), аномалии расположения отдельных зубов, веерообразное расхождение зубов, скученность зубов (73,5%), патология преддверия полости рта (46,7%), III степень подвижности зубов. Указанные патологические

состояния нуждались в предварительной ортодонтической подготовке или хирургическом лечении.

Преобладающими среди жалоб при заболеваниях тканей пародонта были кровоточивость десен при чистке зубов - 82,7 %, подвижность зубов различной степени - 80,2 %, неприятный запах изо рта - 40,7 %, кровоточивость зубов при приеме пищи - 30,8 %. Не соблюдали гигиену полости рта - 45,6 % обследованных. Патология прикрепления переходной складки полости рта выявлена у 46,7% лиц, то есть почти у половины обследованных. Аномалии положения отдельных зубов выявлены у 73,5 % обследованных. Травматическая окклюзия была выявлена у 95,7 % обследованных.

**Ключевые слова:** заболевания тканей пародонта, глубина преддверия полости рта, аномальное положение зубов, травматическая окклюзия, кровоточивость десен, подвижность зубов.