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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.

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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 ბაზებიდან.

WEBSITE

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 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.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. რენტგენოგრაფიების 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.

აღნიშნული წესების დარღვევის შემთხვევაში სტატიები არ განიხილება.

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MANIFESTATIONS OF DISEASES OF THE ORAL MUCOSA OF PATIENTS IN THE ADJARA REGION DURING THE COVID-19 PANDEMIC

Gogotishvili Mariam^{1*}, Gogebashvili Nino², Bakradze Mzia¹, Gorgiladze Tinatin¹, Japaridze Fridon¹.

¹Batumi Shota Rustaveli State University, Department of stomatology, Ninoshvili street #32/35, Batumi, Georgia.

²Kobuleti Municipality Clinic, Georgia.

³Tbilisi State Medical University, Department of Periodontology and Oral Mucosal diseases. TSMU. Vazha Pshavela ave#33, Tbilisi, Georgia.

Abstract.

The aim of this study was to describe manifestations of diseases of the oral mucosa of patients in the Adjara region during the COVID-19 pandemic.

We recruited 55 patients, 25 women (45.5%) and 30 men (54.5%), aged between 18 and 89 years with confirmed COVID-19 at different stages of severity. After obtaining informed consent, we examined their mouths and recorded clinical findings.

Forty percent of the patients had at least 1 oral lesion. The most common lesions were candidiasis and ulcers (7 patients each); 2 patients had enanthems. Geographic tongue and caviar tongue were also observed. Altered taste, dry mouth, and painful/burning mouth were noted in 60%, 27.3%, and 36.4% of patients, respectively. Oral mucosal alterations and lesions were prevalent in this series of COVID-19 patients. An altered taste and a painful/burning mouth were common symptoms.

For the first time, we performed a description of the oral cavity of patients diagnosed with COVID 19 in the Adjara region.

Data were analyzed using descriptive statistics. The variable "age" was compared using the Student's t-test and P-values <0.05 were considered statistically significant.

Key words. Enanthems, candidiasis, Adjara region.

Introduction.

Over the course of the pandemic, a range of COVID-19 presentations affecting various systems, including the skin and mucous membranes, have been described. Lesions of the oral mucosa have been described in few studies [1], and it remains unclear whether they are a consequence of COVID-19 treatments, immune alterations caused by the virus, or other factors such as the high levels of stress associated with infection. The presence in the oral mucosa of angiotensin-converting enzyme 2 (ACE2) and transmembrane protease serine 2 (TMPRSS2) receptors [2,3], and of the viral spike protein [4], suggests a direct effect of the virus in some of the observed oral manifestations.

The oral manifestations described in COVID-19 patients are varied, although many have been previously described as secondary clinical signs in other diseases. A recent study of 666 patients carried out in Spain reported oral lesions in more than 25% of patients. This included inflammation of the lingual papillae, glossitis with lateral indentations, aphthous stomatitis, mucositis, and glossitis with patchy depapillation (migratory glossitis) [5].

Other lesions such as enanthem [6], ulcerations [2,7], vascular and hemorrhagic lesions [5,8,9], candidiasis [6,10], and herpetic lesions [11,12], have also been reported. However, there is still no evidence that these lesions are caused directly by the virus [1].

Aims.

Our objective was to characterize oral lesions and associated clinical findings in COVID-19 patients.

Materials and Methods.

The study population consisted of patients (n = 55) with COVID-19 confirmed by polymerase chain reaction (PCR). All patients had moderate or severe disease.

After obtaining informed consent, the medical history of each patient was reviewed, and an examination of the oral cavity was performed. Each patient was questioned to evaluate taste disturbances and xerostomia. The clinical findings of the oral examination were recorded in a database designed specifically for this purpose. In cases in which oral lesions required medical treatment, this was recorded.

Data were analyzed using descriptive statistics. The variable "age" was compared using the Student's t-test and P-values <0.05 were considered statistically significant.

Results.

The study population consisted of 30 men (54.5%) and 25 women (45.5%), ranging in age from 18 to 89 years (mean ± standard deviation, 51 ± 23.24 y).

Patients with no underlying disease accounted for 45.5% of the study population. In those with underlying disease, hypertension was the most common disease (18.2%), and 10.9% had hypertension with concomitant diabetes. Asthma was another frequently recorded disease (16.4%). Recorded past history included hepatitis and oncological processes.

In 22 patients (40%) at least one alteration or lesion was observed in the oral mucosa Figure (1). Erythematous and pseudomembranous forms of candidiasis were diagnosed in 7 patients (12.7%), and severe angular cheilitis in 1 patient. All were treated with topical and systemic antifungals. The patient with angular cheilitis was treated with a topical mixture consisting of an antibiotic and an antifungal.

Haemorrhagic ulcerative lesions were observed in 4 patients (7.3%) and multiple ulcerations resembling canker sores in 3 patients (5.5%). Two patients presented enanthems in the labial or cheek mucosa.

Other observed lesions included white plaques (1 patient) and lichenoid lesions (1 patient). In these cases, a biopsy was indicated after recovery from the viral infection.

Finally, 1 patient developed a recurrent cold sore, 3 had lingual varicose veins, and 3 were diagnosed with migratory glossitis, onset of which may or may not have occurred before COVID-19.

Oral lesions were more common in men than in women (13 and 9 cases, respectively), although there was no significant



Figure 1. Oral lesions in COVID-19 patients. *a.* Pseudomembranous candidiasis; *b.* Soft palate ulcers and Enanthem; *c.* Pseudomembranous candidiasis and Aphthae; *d.* Leukoplakia on the ventral aspect of the tongue (non-smoker).

difference between the 2 groups ($P = 0.58$, Pearson's χ^2 test). There was no significant difference in mean age between the patients with lesions and those without (53.45 ± 22.51 and 49.36 ± 23.92 y, respectively; $P = 0.52$). Only 6 (27.3%) of the 22 patients with oral manifestations were admitted to the ICU.

Alteration or a total loss of taste was recorded in 33 patients (60%), pain or burning in the mouth in 20 patients (36.4%), and xerostomia in 15 patients (27.3%). Both dysgeusia and oral pain or burning were common in patients with mucosal lesions (68.2% and 77.3%, respectively).

Discussion.

Emerging evidence has sparked much debate regarding the true relationship between oral manifestations in COVID-19 patients and the viral infection itself. The first descriptions of the oral mucosa in COVID-19 patients, recorded in Spain, primarily described ulcerative lesions, similar to those associated with herpetic infections [11].

It has been suggested that oral ulcers may be an initial sign of viral infection [4,13]. In our study, ulcers were the most commonly observed lesions and included both haemorrhagic and aphthous-like lesions. None of our patients underwent biopsies to detect viral proteins in the affected tissue, although the presence of viral spike protein in the oral cavity has been reported [8], suggesting that these ulcers may be due to tissue damage caused directly by the virus. Vascular damage revealed in histological studies of oral cavity lesions suggests that oral lesions may be a consequence of thrombotic vascular damage in the mucosa and subsequent vasculitis [5,14,15].

Enanthem-type lesions have also been described in COVID-19 patients [16-18]. These include petechiae, erythematous macules, and erythematous-vesicular patterns in the oral mucosa, often associated with secondary viral clinical signs [6]. In our study, enanthem-type lesions were only observed in 1 child and 1 adult, and were accompanied by intense pain, which may be associated with the tissue damage caused by the virus.

Manifestations secondary to viral infection were frequently observed in the buccal mucosa of our patients. Candidiasis and recurrent herpetic infection are common lesions in COVID-19 patients [19]. A causal relationship between viral infection and these lesions cannot be established: their appearance seems to constitute a secondary response to drug treatment, immune system alterations, and high levels of stress caused by viral infection [10].

Caviar tongue and geographic tongue were also recorded in our COVID-19 patients, although these entities are quite common in the general population. A limitation of the present study is that it was impossible to accurately determine the moment of onset of these alterations and therefore to directly relate these changes to COVID-19.

Conclusion.

Finally, changes in taste perception and oral burning or pain were very frequent and were also associated with the appearance of oral lesions. Taste disorders can be a significant and specific clinical sign of COVID-19 and may even constitute an early marker of viral infection.

Conflicts of Interest.

The authors declare that they have no conflicts of interest.

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COVID-19-iT daavadebul pacientebSi gamovlenili piris Rrus lorwovani garsis daavadebebi aWaris regionSi gogotiSvili mariami¹, gogebaSvili nino³, baqraZe mzia¹, gorgilaZe TinaTini¹, jafariZi fridon¹.

¹baTumis SoTa rusTavelis saxelmwifo universiteti, stomatologiis departamenti

²qobuleTis municipalitets poliklinika

³Tssu-is parodontisa da piris Rrus lprwovani daavadebaTa departamenti

reziume

Cveni kvlevis mizani iyo piris Rrus lorwovani garsis dazianebebis da masTan dakavSirebuli klinikuri SemTxvevebis daxasiaTeba COVID-19-iT daavadebul pacientebSi. amisaTvis gamovikvlieT aWaris regionSi, kerZod qalaq qobuleTis saeqimo ambulatoriaSi pirveladad Semosuli pacientebi (n = 55), romelTac COVID-19 daudasturdaT polimerazuli jaWvuri reaqqiT (PCR). yvela patients aReniSneboda daavadebis saSualo an mZime mimdinareoba. maT Soris 18-dan 89 wlamde asakis 25 qali (45.5%) da 30 mamakaci (54.5%). vaxdendiT

pacientebis piris Rrus daTvalierebas ZiriTadi erTjeradi stomatologiuri iaraRebiT da maT diagnostirebas. pacientTa 40 procentis hqonda minimum erTi oraluri dazianebeba. yvelaze gavrcelbuli dazianebebi iyo kandidozi da wyluli (TiToeuli 7 pacienti); 2 patients hqonda enanTemebi. aseve dafiqsirda geografiuli ena da „xizilala ena“. subieqturi Civilebidan gemos Secvla, piris simSrale da tkivili/wva aReniSneboda pacientebis 60%-Si, 27.3%-Si da 36.4%-Si. amave pacientebSi obieqturi kvleviT fiqsirdeboda piris Rrus lorwovani garsis cvlilebebi da dazianebebi. yvela maTganisTvis saerTo simptomi iyo Secvlii gemo da tkivili/wva pirSi.

Cvens mier pirvelad moxda aWaris regionSi COVID-19 pacientebSi piris Rrus lorwovani garsis Seswavla. **sakvanZo sityvebi:** enanTemebi, kandidozi, aWaris regionSi.

Заболевания слизистой ротовой полости, выявленные среди пациентов, заболевших covid-19 в Аджарском регионе

Мариам Гоготишвили¹, Нино Гогебашвили³, Мзиа Бакрадзе¹, Тинатин Горгиладзе¹, Фридон Джапаридзе¹

¹Батумский государственный университет имени Шота Руставели

²Поликлиника муниципалитета Кобулет

³Кафедра пародонтологии и заболеваний слизистой оболочки полости рта. ТГМУ

Резюме

Целью нашего исследования было изучение клинических случаев поражения слизистой полости рта и их характеристика среди пациентов больных covid-19.

Для этого нами были исследованы первично поступившие в медицинские амбулатории пациенты (n=55) с диагнозом covid-19, подтвержденным полимерной цепной реакцией (PCR) Аджарского региона, в частности, г.Кобулет

Почти у всех пациентов было отмечено среднее или тяжелое течение заболевания. Среди пациентов от 18-го до 89 лет у 25 женщин (45,5%), у 30 мужчин (54,5%).

У 40% пациентов было отмечено минимум одно оральное поражение. Самыми распространенными поражениями были кандидоз и язва (каждое у 7 пациентов), у двух пациентов были энантемы (сыпь на слизистой полости рта). Также были зафиксированы географический язык и "икорный язык." Из субъективных жалоб отмечались изменения вкусовых ощущений у 60%, сухость во рту у 27.3%,

боли/жжения у 36,4% пациентов.Объективным исследованием среди этих же пациентов были зафиксированы изменения и поражения слизистой оболочки ротовой полости. У всех пациентов были общие симптомы: изменение вкуса и боль/жжение во рту.

Впервые мы провели исследование слизистой оболочки полости рта у больных COVID-19 в Аджарском регионе.

Ключевые слова: энантемы, кандидоз, Аджарском регионе.