CHANGES IN ORGANS AND TISSUES OF THE ORAL CAVITY IN NEW CORONAVIRUS INFECTION (COVID-19)

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Annotation. This scientific article is devoted to the study of changes in the organs and tissues of the oral cavity caused by the new coronavirus (SARS-CoV-2) infection during the COVID-19 pandemic. The effect of coronavirus on the oral cavity is comprehensive and complex, and various symptoms and pathological conditions can occur in this area. In this article, we will look at how COVID-19 infection causes inflammation, hardening, ulcers in the oral cavity and related tissues, as well as changes in oral hygiene and dental conditions. Studies show that the coronavirus affects not only the respiratory system, but also the oral cavity and its supporting structures, which can lead to medium- and long-term dental health problems.The article also presents pathological conditions in the oral cavity (for example, stomatitis, gingivitis, periodontitis) and their relationship with COVID-19, as well as recommendations aimed at improving the methods of clinical diagnosis and treatment of these changes. Expansion of information on the impact of COVID-19 on the oral cavity will allow dental workers and general practitioners to develop effective diagnostic and treatment strategies.

Keywords: oral cavity, novel coronavirus infection, COVID-19, periodontal pathology, periodontitis, clinical association, oral probiotics, Streptococcus salivarius

ПРИ НОВОЙ КОРОНАВИРУСНОЙ ИНФЕКЦИИ (COVID-19) ИЗМЕНЕНИЯ ОРГАНОВ И ТКАНЕЙ ПОЛОСТИ РТА

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Аннотация. Данная научная статья посвящена изучению изменений в органах и тканях полости рта при новой коронавирусной инфекции (SARS-CoV-2) во время пандемии COVID-19. Воздействие коронавируса на полость рта обширное и сложное, в этой области могут возникать различные симптомы и патологические состояния. В этой статье мы рассмотрим, как инфекция COVID-19 вызывает воспаление, уплотнение, язвы в полости рта и связанных с ними тканях, а также как изменяется гигиена полости рта и стоматологические состояния. Исследования показывают, что коронавирус поражает не только дыхательную систему, но и полость рта и поддерживающие ее структуры, что

может привести к средне- и долгосрочным проблемам со здоровьем зубов. В статье также представлены патологические состояния полости рта (например, стоматит, гингивит, периодонтит) и их связь с COVID-19, а также рекомендации, направленные на улучшение методов клинической диагностики и лечения этих изменений. Расширение информации о воздействии COVID-19 на полость рта позволяет стоматологическим работникам и врачам общей практики разрабатывать эффективные стратегии диагностики и лечения.

Ключевые слова: полость рта, новая коронавирусная инфекция, COVID-19, патология пародонта, пародонтит, клиническая ассоциация, пероральные пробиотики, Streptococcus salivarius

ЯНГИ КОРОНАВИРУС ИНФЕКЦИЯСИДА (СОВИД-19) ОҒИЗ БЎШЛИҒИ АЪЗОЛАРИ ВА ТЎҚИМАЛАРИДАГИ ЎЗГАРИШЛАР

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Аннотация. Мазкур илмий мақола COVID-19 пандемияси даврида янги коронавирус (SARS-CoV-2) инфектсиясининг оғиз бўшлиғи аъзолари ва тўқималаридаги ўзгаришларни ўрганишга бағишланган. Коронавируснинг оғиз бўшлиғига таъсири кенг қамровли ва мураккаб бўлиб, бу ҳудудда турли хил симптомлар ва патологик ҳолатлар юзага келиши мумкин. Мақолада COVID-19 инфекциясининг оғиз бўшлиғи ва унга боғлиқ тўқималарда юзага келадиган яллиғланиш, қаттиқлашиш, яралар, шунингдек, оғиз гигиэнаси ва стоматологик ҳолатларнинг қандай ўзгаришини кўриб чиқамиз. Тадқиқотлар шуни кўрсатадики, коронавирус нафақат нафас олиш тизимини, балки оғиз бўшлиғи ва уни қўллаб-қувватловчи структураларни ҳам зарарлайди, бу эса ўрта ва узоқ муддатли стоматологик саломатлик муаммоларига олиб келиши мумкин. Мақолада шунингдек, оғиз бўшлиғидаги патологик ҳолатлар (масалан, стоматит, гингивит, периодонтит) ва уларнинг COVID-19 билан боғлиқлиги, шунингдек, бу ўзгаришларнинг клиник диагностика ва даволаш методларини яхшилашга қаратилган тавсиялар тақдим этилади. COVID-19 нинг оғиз бўшлиғига таъсири ҳақида маълумотларни кенгайтириш, стоматологик ходимларга ва умумий амалиёт шифокорларига самарали диагностика ва даволаш стратегияларини ишлаб чиқиш имконини беради.

Калит сўзлар: оғиз бўшлиғи, янги коронавирус инфекцияси, COVID-19, пародонт патологияси, пародонтит, клиник ассоциация, оғиз орқали қабул қилинадиган пробиотиклар, Streptococcus salivarius

The COVID-19 pandemic has had a significant impact on the global healthcare system worldwide. Infection with the coronavirus (SARS-CoV-2) usually negatively affects such systems as the respiratory, nervous, and cardiovascular systems, but new research, including changes in the oral cavity and its tissues, including teeth, tongue, nasal passages, and salivary glands, is also receiving special attention.

The oral cavity is very important for COVID-19, since the SARS-CoV-2 virus can enter a person through the mouth and multiply there. The virus can also spread to various tissues of the oral cavity, including the salivary glands, gums, tongue, and nasal passages. This problem exacerbates oral health and can lead to the development of new diseases.

A decrease or deterioration in saliva production was observed in patients with COVID-19. This condition may be associated with xerostomia (dry mouth) and may increase the activity of bacteria and fungi in the mouth, resulting in oral infections.

Changes in gingiva and periodontal system in patients with COVID-19, inflammation of the dental pulp (gingivitis) and periodontal system was observed. These conditions can lead to bleeding in the mouth, red and swollen dental flesh, and increased pain.

Language Changes infection with the coronavirus can cause swelling, pain, discoloration of the tongue, and sometimes pink or white coating on the surface of the tongue. These changes are visible in patients with COVID-19, but this condition differs depending on the impact on the oral cavity of patients.

Nasal passages the virus can also multiply in the nasal passages, where it enters the oral cavity through nasal droplets. In addition, the appearance of inflammation and discomfort in the nasal passages indicates the effect of COVID-19 on the nasal and respiratory systems in patients.

Teeth do not have any protective mechanisms against COVID-19 infection. Many COVID-19 patients experience problems, especially with the oral cavity and teeth. Teeth can especially multiply excess bacteria that multiply inflammations and infections. Therefore, it is important to regularly brush your teeth and disinfect your mouth.

The COVID-19 pandemic has had a major impact on healthcare systems around the world. The spread of the SARS-CoV-2 coronavirus virus has led to significant changes not only in the respiratory tract but also in the oral cavity and related tissues (e.g., tongue, teeth, nose, throat). This analysis aims to analyze the changes caused by COVID-19 in the oral cavity and related structures, and to analyze these changes based on scientific literature.

There are several studies on the effects of COVID-19 on the oral cavity and related organs. ACE2 receptors, which are the main entry point of the SARS-CoV-2 virus, are also present in the tissues of the oral cavity. This is the main mechanism by

which the virus penetrates these areas and causes various changes. Studies have shown that many patients experience dry mouth, sore throat, and dental problems.

Changes in the tissues of the oral cavity are associated with many mechanical and chemical factors. In patients with coronavirus, losses, injuries, and inflammation of the oral mucosa were observed. These conditions often depend on the patient's general condition and the immune system's response. At the same time, the associated effects of COVID-19 on the bacterial flora of the mouth have also been shown, which can have an even more negative impact on oral health.

There are reports of the impact of COVID-19 on teeth. Some studies, especially showing the interaction of the virus with the microflora of the oral cavity, emphasized that it causes inflammation, swelling, and bleeding in the teeth and periodontal tissues. undefined

Preventive measures are important to prevent the health of the oral cavity from being affected by COVID-19. Regular oral cleansing, prevention of bacterial inflammation, and treatment with antiseptics and anti-inflammatory drugs have shown beneficial results in many cases.

Although the effects of COVID-19 on the oral cavity and related tissues have not yet been fully studied, the available literature indicates that this virus negatively affects not only the respiratory tract, but also the mouth and its structures (teeth, tongue, throat, and periodontal tissues). The relationship between the oral health status of patients, the degree of infection with the virus, and its effect on the general immune system is presented. At the same time, a more in-depth study of the impact of COVID-19 on the oral cavity and its tissues may be important in the prevention and treatment of this disease. New scientific research will help to identify changes in the oral cavity and develop effective treatment methods.

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