

Литература

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Резюме

Цель: оценка психологического статуса у пациентов с различной тяжестью клинического течения хронической рецидивирующей трещины губ (ХРТГ). **Материал и методы:** исследование проводилось на базе кафедры факультетской терапевтической стоматологии с 2017 г. Были обследованы 75 пациентов с ХРТГ, средний возраст

45,64±2,11 года. Мужчины составляли 65,00±7,54%, женщины – 35,00±7,54%. В контрольную группу вошли 40 человек, не имеющих заболеваний красной каймы губ, средний возраст 45,22±1,82 года, мужчины составляли 66,67±5,44%, женщины – 33,33±5,44%. Результаты: у пациентов с ХРТГ преобладали тревожно-фобические расстройства и депрессия. Их проявления варьировали от отсутствия при легком течении заболевания до субклинических форм при течении средней тяжести, также определяется депрессивные состояния, протекающие тяжелее. Выводы: пациентам с ХРТГ необходима психологическая помощь, адаптированная к тяжести клинического течения патологии губ.

Ключевые слова: красная кайма губ, хроническая рецидивирующая трещина губ, тревожно-депрессивные расстройства, госпитальная шкала тревоги и депрессии HADS.

ANNOTATION. A study in patients with CHRLC revealed a predominance of anxiety-phobic disorders and depression. Its manifestations vary from absence in the mild course of the disease to subclinical forms in the course of moderate severity, and depressive states that are more severe are also determined. Research results prove the need for psychological assistance to patients with CHRLC, adapted to the severity of the clinical course of lip pathology.

Key words: red border of lips. chronic relapsing crack of lips. Anxiety and depressive disorders, hospital anxiety scale and depression, HADS.

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ANALYSIS OF THE MICROFLORA OF THE ORAL CAVITY IN THE CLINICAL COURSE OF THE CHRONIC RECURRENT ARTHOSIS OF STOMATITIS



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Chronic recurrent aphthous stomatitis (CPAS) is one of the most common inflammatory diseases of the oral mucosa (MOP), characterized by recurrent rash of aphthae with a prolonged course and periodic exacerbations. The study of chronic recurrent aphthous stomatitis for many years does not lose its relevance and continues to be a priority in modern dentistry [1,2,6].

One of the complex issues of the pathology of the oral mucosa (COP) is the treatment of chronic

recurrent aphthous stomatitis. The reason for the lack of effectiveness of therapy is the lack of a complete picture of the pathogenesis of CPAS.

In recent years, interest in the role of microorganisms in the etiology and pathogenesis of various diseases of the oral mucosa has increased [1–3,6].

However, the vast majority of studies devoted to the study of CPAS were carried out without taking into account the severity of the clinical course of

CPAS. Assessment of microbiocenosis was carried out according to the data of oral swabs without a detailed study of the number of microbiocenosis [4,7].

The significance of pathogenic microorganisms that make up the most important biotopes of the body in the persistence of the process and the recurrence of the disease has not been determined.

In recent years, there has been reason to consider the oral cavity and intestines as an essential part of the body's immune system. The microflora of these biotopes contributes to the formation of general body immunity due to the induction of antibodies of interferons, lysozyme, cytokines, immunoglobulins, complement [2,3,5,8,9].

Promising in this regard is the conduct of comprehensive studies to study the clinical and pathogenetic features of the development of CPAS, assess the nature of the disorders of the microbiocenosis of the oral cavity and large intestine, their role in the development of the disease.

It can be assumed that a comprehensive solution to this issue will reveal some pathogenetic mechanisms of recurrence of the pathological process, evaluate the role of microbiocenosis disorders in the main biotopes of the body.

Objective

To study the state of microbiocenoses of the main biotopes of the oral cavity in patients with various clinical course of HRAS.

Materials and methods

Research on the study of ASD was carried out at the Department of Hospital Therapeutic Dentistry and Therapeutic Dental Clinic TGSI.

The material for analysis and conclusions were the results of a survey of 43 patients with recurrent aphthous stomatitis. As a norm, data were taken from a survey of 10 people of the corresponding gender and age of the patient.

In the oral fluid, not only a qualitative microbial landscape was determined, but also a quantitative content of representatives of the normocenosis, conditionally and pathogenic microflora, which made it possible to determine dysbiotic changes in the oral cavity.

For this, test tubes with oral liquid were delivered to the laboratory for 1 hour, where a series of serial dilutions were prepared with culture on the appropriate differential diagnostic media, incubation of cultures for 29–72 ches and study of the cultural, morphological and biochemical characteristics of the isolated

microorganisms. The results were expressed in Ig CFU/ml.

Results

Communicating with the external environment, the oral cavity is populated by microorganisms representing a complex and stable ecosystem. From a wide variety of species inhabiting the oral cavity, we studied resident, pathogenic, and conditionally pathogenic species that determine the colonial resistance of this biotope. An analysis of the microflora composition showed that healthy people (control group) were dominated by representatives of normal microflora, representatives of opportunistic microorganisms were present in insignificant titers. The presence of CPAS on oral mucosa was accompanied by impaired microbiocenosis, while the severity of dysbiotic changes progressively increased with an increase in the severity of the process on SOP.

The oral cavity is often colonized by lactobacilli. These microorganisms are capable of producing proteases, peptidases and bacteriocytines, performing a physiologically important function of maintaining the constancy of the internal environment of the body. These microorganisms are involved in providing non-specific resistance and become part of the environmental barrier. In this case, lactobacilli have an antagonistic effect on pathogenic microorganisms, blocking the receptors of epithelial cells, protecting themselves from the adhesion of pathogens [2,3,5].

As can be seen from table 1, the titers of lactobacilli of the oral fluid were lowered relative to the control ($p < 0.05$) already in patients with mild XPA – 2.0 ± 0.09 CFU/ml; moderate severity – 1.62 ± 0.07 ($p < 0.01$) and severe course – 1.23 ± 0.04 ($p < 0.01$) versus 2.42 ± 0.11 CFU/ml in the control group. Against this background, the number of bacteriocytines sharply increased, amounting to 2.51 ± 0.12 ($p < 0.01$); 3.02 ± 0.14 ($p < 0.01$) and 4.00 ± 0.19 CFU/ml ($p < 0.01$) versus 2.01 ± 0.09 CFU/ml in the control group; the corresponding dynamics of clostridia was 1.23 ± 0.06 ($p < 0.05$); 2.0 ± 0.08 ($p < 0.05$) and 2.73 ± 0.12 ($p < 0.01$) CFU/ml vs. 0.92 ± 0.03 CFU/ml in the control.

An indicator of microbiological distress is the detection of various variants of *E. coli*, a microorganism of an unusual oral biotope. Thus, the total concentration of *E. coli* progressively increased from 1.0 ± 0.04 CFU/ml in patients with mild ASD to 1.32 ± 0.05 – 3.25 ± 0.14 CFU/ml, respectively, with an average and severe severity; the concentration of *E. coli* with hemolytic activity was 0.63 ± 0.02 , respectively; 0.88 ± 0.03 and 1.32 ± 0.04 CFU/ml.

Oral microbiocenosis (in Ig KOE/ml) of oral fluid in patients with various clinical courses of CPAS

Microorganisms	Control	Clinical course of ASD		
		light	medium	heavy
Lactobacillus spp.	2,42±0,11	2,00±0,09 ^a	1,62±0,07 ^{ab}	1,23±0,04 ^{abc}
Bacteroides spp.	2,01±0,09	2,51±0,12 ^a	3,03±0,4 ^{ab}	4,00±0,19 ^{abc}
Clostridium	0,92±0,03	1,23±0,06 ^a	2,00±0,08 ^{ab}	2,73±0,12 ^{abc}
Enterobacillus	-	0,62±0,03 ^a	0,81±0,03 ^{ab}	1,25±0,05 ^{abc}
E.coli (lac+/hem-)	-	0,25±0,01 ^a	0,48±0,02 ^{ab}	0,83±0,04 ^{abc}
E coli (lac+/hem+)	-	0,32±0,01 ^a	0,92±0,04 ^{ab}	1,26±0,05 ^{abc}
E coli (lac-/hem-)	-	-	0,26±0,01 ^{ab}	0,91±0,03 ^{abc}
E coli (lac-/hem+)	-	-	0,44±0,02 ^{ab}	1,23±0,06 ^{abc}
E coli (only hem+)	-	0,63±0,02 ^a	0,88±0,03 ^{ab}	1,32±0,04 ^{abc}
E coli (amount)	-	1,0±0,04 ^a	1,32±0,05 ^{ab}	3,25±0,14 ^{abc}
Klebsiella (amount)	1,82±0,07	2,32±0,10 ^a	2,62±0,11 ^{ab}	2,88±0,12 ^{abc}
Proteus vulgaris	1,10±0,04	1,52±0,07 ^a	2,03±0,03 ^{ab}	2,42±0,11 ^{abc}
Staph. aureus	3,12±0,12	4,00±0,15 ^a	4,25±0,21 ^{ab}	4,82±0,23 ^{abc}
Staph. spp.	3,26±0,15	3,82±0,17 ^a	4,42±0,20 ^{ab}	4,95±0,25 ^{abc}
Enterococcus	-	0,52±0,02 ^a	0,61±0,02 ^{ab}	1,23±0,05 ^{abc}
Candida	1,32±0,06	1,88±0,07 ^a	2,13±0,10 ^{ab}	3,16±0,14 ^{abc}

Note. a – p<0.05 with respect to control; b – p<0.05 to the mild course of XPA; c – p<0.05 with respect to moderate chronic pain.

Against the background of a decrease in the activity of resident microflora, the release of opportunistic microorganisms sharply increased. Thus, Klebsiella titers in mild ASD were 2.32±0.10 (p<0.05); moderate severity – 2.62±0.11 (p<0.05) and severe course of 2.88±0.12 CFU/ml (p<0.05) versus 1.82±0.07 CFU/ml in the control; the corresponding dynamics of the protea was 1.52±0.07 (p<0.01); 2.03±0.09 (p<0.01) and 2.42±0.11 (p<0.01) CFU/ml versus 1.10±0.04 CFU/ml.

Against the background of an increase in the severity of the clinical course of ASD, pathogenic and conditionally pathogenic coccal microflora were activated. So, the titer of Staphylococcus aureus in patients with mild ASD was 4.0±0.15 (p<0.05); moderate severity – 4.25±0.21 (p<0.05) and severe severity – 4.82±0.23 (p<0.05) CFU/ml vs. 3.21±0.12 CFU/ml control group; the corresponding dynamics of pathogenic staphylococcus and enterococci was 3.82±0.17 (p<0.05); 4.42±0.20 (p<0.01) and 4.95±0.25 (p<0.01) versus 3.26±0.15 CFU/ml in the control; and 0.52±0.02; 0.61±0.02 and 1.23±0.05 against lack of control.

The growth of Candida genus was noted, while in patients with mild CPAS, the average titer of fungi was 1.88±0.10 (p<0.05) CFU/ml, and medium and heavy, respectively, 2.13±0.10 (p<0.05) and 3.16±0.14 (p<0.05) versus 1.32±0.08 COC/ml in the control (table).

Microbial imbalance leads to the activation of lipid peroxidation processes, a change in non-specific resistance and exacerbation of inflammatory mucosal lesions.

In recent years, an opinion has been established that microbiocenosis disorders are considered not as a reflection of the pathological process, but as a pathogenetic mechanism in the development of a particular disease, and in some cases, the trigger mechanism of the disease [2,8,9].

Thus, dysbiosis can act as an etiological factor or accompany the disease. Changes in the microbial balance in the oral cavity are closed by a vicious circle: pathogenic microflora reduces the resistance of the tissues of MOP, impaired adhesion of neutrophils, chemotaxis and phagocytosis, and multiplication and persistence of microflora increase.

Conclusions

An increase in the severity of the clinical course of CPAS is associated with an increase in the number of

bacteria in the oral cavity, mainly due to opportunistic pathogens. The level of gram-negative bacteria increases in proportion to the severity of the clinical course of CHRAS, which can lead to an aggravation of the course of the disease.

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Summary

Communicating with the external environment, the oral cavity is populated by microorganisms representing a complex and stable ecosystem. From a wide variety of species inhabiting the oral cavity, resident, pathogenic, and conditionally pathogenic species that determine the colonial resistance of this biotope were studied. An analysis of the composition of microflora showed that the titers of pathogenic microorganisms progressively increased with an increase in the severity of the process in oral mucosa.

Key words: aphthous stomatitis, microbiocinosis, pathogenic microorganisms, conditionally pathogenic microorganisms.

Rezumesi

Tashqi muhit bilan aloqa qilganda, og'iz bo'shlig'ida murakkab va barqaror ekotizimni ifodalovchi mikroorganizmlar yashaydi. Ushbu biotopning rezistentligini ifodalovchi og'iz bo'shlig'ida ko'plab turlardan biri rezident, patogen va shartli patogen mikroorganizmlar o'rganildi. Mikroflora tarkibining tahlili shuni ko'rsatdiki, patogen mikroorganizmlarning titrlari OBSHQ dagi jarayonning og'irligi oshishi bilan asta-sekin o'sib boradi.

Резюме

Сообщаясь с внешней средой, полость рта заселяется микроорганизмами, представляющими сложную и стабильную экосистему. Из большого разнообразия видов, заселяющих полость рта, авторами были изучены резидентные, патогенные и условно-патогенные виды, определяющие колониальную резистентность этого биотопа. Анализ состава микрофлоры показал, что титры патогенных микроорганизмов прогрессивно увеличивались с увеличением тяжести процесса на слизистую оболочку полости рта.

Ключевые слова: полость рта, резидентные, патогенные и условно-патогенные виды микрофлоры.