



TREATMENT AND PREVENTION OF CHRONIC CATARRHAL GINGIVITIS

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Abstract. This disease is the most common form of gum inflammation, which occurs as a result of the pathogenic effects of microorganisms present in the gingival plaque. At the same time, the capillaries of the gum are in the center of the pathological process, and the teeth retain their stability.

According to the scale of inflammation, the disease can be localized or generalized. Chronic generalized catarrhal gingivitis engulfs the gum along the entire length on one or both jaws, while localized spreads only in the area of 1-2 teeth. The cause of localized gingivitis is more often the overhanging edge of the filling, the sharp edge of a destroyed tooth or prosthesis.

Keywords: chronic catarrhal gingivitis, plaque microorganisms, periodontal disease, therapeutic and preventive measures.

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ЛЕЧЕНИЕ И ПРОФИЛАКТИКА ХРОНИЧЕСКОГО КАТАРАЛЬНОГО ГИНГИВИТА

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Аннотация. Данное заболевание является наиболее распространенной формой воспаления десен, которая возникает в результате патогенного воздействия микроорганизмов, присутствующих в десневом налете. При этом в центре патологического процесса находятся капилляры десны, а зубы сохраняют свою устойчивость.

По масштабу воспаления недуг может быть локализованным или генерализованным. Хронический генерализованный катаральный гингивит захватывает десну по всей длине на одной или обеих челюстях, тогда как локализованный распространяется лишь в области 1-2 зубов. Причиной локализованного гингивита чаще является нависающий край пломбы, острый край разрушенного зуба или протеза.

Ключевые слова: хронический катаральный гингивит, микроорганизмы зубного налета, пародонт, лечебно-профилактические мероприятия.

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THE RELEVANCE

Chronic catarrhal gingivitis develops in children and young people with non-compliance with the rules of oral hygiene, with traumatization of the marginal gum with destroyed teeth, fillings, restorations, orthodontic structures, with dental anomalies leading to a violation of the normal trophic periodontal tissues, with general somatic pathology, immunodeficiency of various genesis [1].

The main etiological factor of diseases of the marginal periodontal are plaque microorganisms. Gingivitis, therefore, is a disease associated with the penetration of a microbial agent into the periodontal tissues, triggering an immune response in the body and requiring not only local exposure to the periodontal. Therapy is needed that would affect

such an internal structure of the body as blood, and which would normalize the immune parameters of the blood, which change with periodontal pathology [3].

The exceptional relevance of the study of targeted immunocorrection in the treatment of inflammatory diseases of periodontal tissues is explained by their wide spread with the unsatisfactory effect of numerous means to combat them. For this reason, there is a constant search for new therapeutic methods that can fix the positive result of treatment, which is achieved as a result of painstaking multi-session procedures [2,4].

The purpose of the study is to compile and evaluate the use of a comprehensive treatment regimen for chronic catarrhal gingivitis.

MATERIAL AND METHODS

For an objective diagnostic assessment of the condition of periodontal tissues, special indices and samples were used: plaque index, designed to determine the thickness of plaque in the gingival region of the tooth; gingivitis index GI, indicating the localization and severity of gingivitis, for which a button probe was used; peripheral blood circulation index, which was evaluated based on the ratio of indicators of resistance of capillaries of the gum and resorption time vacuum hematomas.

A modern medicinal immunotropic agent "Licopid" has been proposed as the drug of choice. The active principle of lycopide is acetylglucosaminyl-acetylmuramyl-alanyl-D-isoglutamine. This is glucosaminylmuramyl dipeptide (GMDP) — a substance that is part of the cell wall of all known bacteria, including the normal human microflora [6]. The well-known ability of bacteria in symbiosis with the human body to participate in the regulation of its immune system is associated with the components of the bacterial wall. Thus, GMDP is a natural modulator of the immune system, and the effect of lycopene on the body is closest to the process of natural immunoregulation [2,5]. This is an important advantage of the drug and provides good tolerability. Lycopide can be an ideal drug for immunoprophylaxis, due to the optimal ratio of efficacy and safety. Another important advantage of lycopide is that it is a semi-synthetic drug, so it contains a high concentration of the active ingredient (GMDP) and is free of impurities that can cause allergies and other adverse reactions.

A unique property of GMDP, which distinguishes it from other muramyl dipeptide drugs, is the ability to suppress the inflammatory response by activating the production of soluble inflammatory cytokine receptors acting as their blockers. The pharmacological effects of lycopide are anti-infective (antibacterial, antifungal, antiviral), stimulation of mucosal immunity, anti-inflammatory, leukopoietic, detoxifying, stimulation of regeneration; available in the form of tablets of 1 mg and 10 mg, 10 pieces in a blister pack. To increase the effectiveness of the treatment of chronic catarrhal gingivitis will allow the reasonable use of immunotherapy, based on the study of the characteristics of local and systemic immunity that characterize this disease [4].

The scheme of complex treatment was applied in 50 people with diagnosed chronic catarrhal gingivitis. The treatment included professional oral hygiene with preventive and educational

measures. After determining the necessary clinical and laboratory parameters of the oral cavity and periodontal, they begin professional oral hygiene. Under the antiseptic bath (3% hydrogen peroxide), hard and soft dental deposits are removed using a special set of tools for removing tartar, brushes and rubber cups in combination with polishing pastes of various degrees of abrasiveness. In case of detection of local traumatic periodontal factors (filling defects in the posterior region and at contact points), their correction and elimination are carried out. Inform patients in detail about the causes and consequences of the diagnosed disease, subjects and methods of individual oral hygiene [7].

For local anti-inflammatory therapy, well-known drugs of choice "Metrogil-denta" and "Dicloran" are proposed. Treatment, simultaneously aimed at eliminating the etiological microbial factor and pathogenetic suppression of the inflammatory process, makes it possible to slow down the progression of the disease and accelerate regeneration. The antibacterial drug "Metrogil-Denta" is represented by the active components chlorhexidine and metronidazole benzoate [3]. The organoleptic properties of metrogil-dent gel are convenient for topical application. Its water solubility does not hinder the outflow of exudate, and its high fluidity makes it possible to fill the gingival furrow with gingivitis as much as possible with a syringe with a blunted needle. The optimal exposure of Metrogil-denta gel for gingivitis is 30 minutes, 5 procedures.

RESEARCH RESULTS

Clinical manifestations in chronic catarrhal gingivitis were characterized by swelling, hyperemia, pasty gingival margin, bleeding interdental papillae and marginal gum. The scalloping of the gingival margin was preserved in all cases. The gingival furrow had a depth of 1.5-2 mm, the dentoalveolar connection was preserved. Tooth mobility was absent in all the examined patients. Soft dental deposits were noted in all the subjects (100%), and in 49 patients (81.6%) they had the consistency of supra-gingival tartar of various densities and color variations from pale yellow to dark brown. The bite in all the examined patients was determined as orthognathic without signs of dental and maxillary anomalies. Radiological changes in periodontal bone tissue in individuals with gingivitis, as well as in the healthy group, were not detected.

As a result of the application of the proposed

scheme, a decrease in the plaque index after therapeutic measures was recorded from 2.7 ± 0.016 to 0.1 ± 0.04 ($P < 0.05$). The gingivitis index decreased from 2.9 ± 0.06 to 0 ($P < 0.05$) and its interpretation was designated as "healthy periodontal disease". The dynamics of the peripheral blood circulation index after local anti-inflammatory exposure together with lycopide immunotherapy revealed a reduction in the index from 0.061 ± 0.003 to 0.899 ± 0.12 ($P < 0.05$), which corresponded to the value characteristic of the criterion of the physiological norm of peripheral blood circulation in periodontal.

CONCLUSION

Thus, considering that in chronic catarrhal gingivitis, along with disorders of the functioning of the ASC, there are signs of immunological insufficiency on the part of the cellular link of systemic immunity, which, together with clinical signs of chronic inflammatory process in periodontal disease, make it possible to diagnose these changes as a secondary immunodeficiency condition, there is a need for targeted immunocorrection.

CONFLICT OF INTERESTS

The authors declare the absence of obvious and potential conflicts of interest related to the publication of this article.

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AVAILABILITY OF DATA AND MATERIALS

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AUTHORS' CONTRIBUTIONS

All authors contributed to the design and interpretation of the study and to further drafts. All authors read and approved the final manuscript.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

All applicable international, national, and/or institutional guidelines for the care and use of

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КОНФЛИКТ ИНТЕРЕСОВ

Авторы заявляют, что данная работа, её тема, предмет и содержание не затрагивают конкурирующих интересов.

ИСТОЧНИКИ ФИНАНСИРОВАНИЯ

Авторы заявляют об отсутствии финансирования при проведении исследования.

ДОСТУПНОСТЬ ДАННЫХ И МАТЕРИАЛОВ

Все данные, полученные или проанализированные в ходе этого исследования, включены в настоящую опубликованную статью.

ВКЛАД ОТДЕЛЬНЫХ АВТОРОВ

Все авторы внесли свой вклад в подготовку исследования и толкование его результатов, а также в подготовку последующих редакций. Все авторы прочитали и одобрили итоговый вариант рукописи.

ЭТИЧЕСКОЕ ОДОБРЕНИЕ И СОГЛАСИЕ НА УЧАСТИЕ

Были соблюдены все применимые международные, национальные и/или институциональные руководящие принципы по уходу за животными и их использованию.

СОГЛАСИЕ НА ПУБЛИКАЦИЮ

Не применимо.

ПРИМЕЧАНИЕ ИЗДАТЕЛЯ

Журнал "Интегративная стоматология и челюстно-лицевая хирургия" сохраняет нейтралитет в отношении юрисдикционных претензий по опубликованным картам и указаниям институциональной принадлежности.

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