

THE ROLE OF BAKSTIMS IN THE COMPLEX THERAPY OF PATIENTS WITH INFLAMMATORY DISEASES OF THE SALIVARY GLANDS

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Annotation.

Diseases of the salivary glands are often found among all dental pathology, and range from 0.3 to 24%. Of these, chronic sialadenitis accounts for 24.8%, respectively. The use of Bakstims in the arsenal of therapy helps to remove radicals, thereby stimulating antioxidant protection, the latter is expressed in the normalization of the activity of enzymes such as CT and glutathione peroxidase. Antioxidant therapy has a positive effect on the oxygen balance and oxygen saturation of tissues, the amount of superoxide radicals decreases, which leads to the normalization of SOD. The obtained data on indicators of free radical processes correlate well with clinical improvement in patients with sialadenitis.

Key words

salivary glands, inflammatory diseases, complex therapy, Bakstims.

РОЛЬ БАКСТИМСА В КОМПЛЕКСНОЙ ТЕРАПИИ ПАЦИЕНТОВ С ВОСПАЛИТЕЛЬНЫМИ ЗАБОЛЕВАНИЯМИ СЛЮННЫХ ЖЕЛЕЗ

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Резюме.

Заболевания слюнных желез часто встречается среди всей стоматологической патологии, и составляют от 0,3 до 24%. Из них на долю хронического сиагоденита приходится соответственно 24,8%. Использование в арсенал терапии бакстимс способствует удалению радикалов, стимулируя тем самым антиоксидантную защиту, последнее выражается в нормализации активности таких ферментов, как КТ и глутатионпероксидаза. Антиоксидантная терапия положительно воздействует на кислородный баланс и насыщения тканей кислородом, количество супероксидных радикалов уменьшается, что приводит к нормализации СОД. Полученные данные по показателям свободнорадикальных процессов хорошо коррелируют с клиническим улучшением у больных с сиагоденитом.

Ключевые слова

слонные железы, воспалительная заболевания, комплексная терапия, Бакстимс.

Diseases of the salivary glands are often found among all dental pathology, and range from 0.3 to 24%. Of these, chronic sialadenitis accounts for 24.8%, respectively.

The structure of the incidence of various forms of sialadenitis demonstrates the vast majority (85-96%) of lesions of the parotid glands by the inflammatory process. An inconspicuous onset, periodic exacerbations, and a long course of the inflammatory process create difficult conditions for adequate diagnosis and treatment of this pathology (3).

One of the most important but little studied processes in the oral cavity is the detection of free radicals in saliva and their relationship with indicators of antioxidant protection. Lipid peroxidation is the main source of free radicals. Reactive oxygen species formed during LPO is involved in the processes of proliferation, modulation of apoptosis, metabolism of proteins and lipid components of cell membranes, ensuring the normal functioning of the latter. The development of the pathological process is accompanied by structural deformation of cell membranes, restructuring of their lipid bilayer. This leads to a change in the content of lipid peroxides in the cell membrane, and, accordingly, to an imbalance between the formation of lipid peroxides and the activity of antioxidant defense enzymes (4). All of the above is directly related to the pathogenesis of inflammatory and degenerative diseases of the salivary glands and indicates the need to study these factors in the development of effective treatment regimens.

In this situation, the choice of the method of therapy is determined by the form and stage of the disease, the activity of the process.

In this regard, the search for new methods of treatment of chronic inflammatory diseases of the salivary glands remains an urgent problem. In this regard, attracts a new domestic phytopreparation bakstims, obtained on the basis of natural raw materials and containing natural antioxidants.

The purpose of this study was to evaluate the effectiveness of Bakstims in the complex treatment of inflammatory diseases of the salivary glands.

Material and research methods:

Under our dynamic observation and treatment were 49 patients with chronic inflammatory disease of the salivary glands aged 22 to 68 years, of which there were 34 women, 15 men. Among patients with chronic sialadenitis, 8 people suffered from chronic parenchymal parotitis. The control group consisted of 12

people of the same age with a sanitized oral cavity, no history of salivary gland diseases, including 5 men and 7 women.

The collection of mixed saliva and saliva from the excretory ducts was carried out in the morning on an empty stomach from 9.00 to 12.00. for treatment, along with basic therapy, as an antioxidant, patients were prescribed the drug bakstims, 2 drops twice a day (morning and evening) for 10 days.

Biochemical studies of mixed saliva included the determination of the content of malonic dialdehyde (MDA) and antioxidant enzymes (catalase, glutathione peroxidase, superoxide dismutase). The level of MDA was assessed according to Yu.A. Vladimirov and A.I. Archakov (1970), SOD activity - according to E.E. Dubininov et al. (1983), QD activity - according to M.A. Korolyuk et al. (1988), phospholipase A₂ activity by Chanachona method L. _ (1978), activity of glutathione peroxidase according to the method of S.N. Vlasova et al. (1990).

The results obtained were processed by the method of variation statistics using Student's t -test to assess the significance of differences using a package of applied programs for personal computers.

Results and its discussion:

Biochemical studies have shown that the components of lipid peroxidation, antioxidant protection (except for SOD) and the activity of PL A₂ in the examined patients with an exacerbation of the disease in mixed saliva and blood compared with the control group increased (table 1).

As is known, sialadenitis is characterized by the presence of an inflammatory process in the salivary glands, accompanied by changes in the acilar tissue and ducts of the salivary glands. The noted structural and functional changes in cell membranes are the result of destructive metabolic processes caused primarily by a shift in the LPO-AOD system towards increased formation of free radicals and weakening of AOD.

Table 1

Results of biochemical studies of mixed saliva in patients with chronic sialadenitis during treatment

Indicators	control	Before treatment	After treatment
Phospholipase A ₂ (μmol /min/ml)	1.22±0.13	7.44±0.87*	1.52±0.11**
MDA (nmol / ml)	1.13±0.12	1.9±0.07*	1.01±0.12**
CT (IU/mg protein)	16.3±0.93	20.2±2.8	15.4±2.4
Glutathione peroxidase (IU/mg protein)	0.29±0.02	2.81±0.31*	0.32±0.01**
SOD (IU/mg protein)	34.1±0.8	23.1±2.12*	12.6±1.23**

Note: * - $P < 0.05$ significance of differences when compared with the control group; ** - $P < 0.05$ significance of differences when comparing before and after therapy.

As can be seen from the data obtained (table 1) MDA, the activity of which can be judged on the depth of the process of lipid peroxidation, significantly increased in relation to the comparison group. In the course of treatment with the inclusion of an antioxidant - bakstims, the amount of MDA significantly decreases, thereby indicating a decrease in the source of formation of radicals (ie, the production of radicals during the oxidation of fatty acids).

Our data on AOD indicates an increase in antiperoxide mechanisms that neutralize the formation of radicals in the examined patients before treatment. The exception is SOD, the level of which in patients with sialadenitis was significantly reduced, i.e. due to either a low level of superoxide, which is a substrate for SOD, or a decrease in the synthesis of SOD itself. Glutathione peroxidase before treatment was significantly increased compared with the control group by an average of 9 times, which indicates the resolution of lipid hydroperoxides.

An increase in the number of PMNs and lymphocytes with pronounced signs of degeneration in patients with exacerbation of chronic sialadenitis was accompanied by an increase in the activity of PL A₂ in the oral fluid by 6 times, which is apparently due to the need for the enzyme in the medium by a significant breakdown of neutrophils and lipid components of cell membrane complexes.

Against the background of ongoing antioxidant and basic therapy of chronic sialadenitis, antiperoxide mechanisms are enhanced that neutralize the formation of radicals, which leads to a decrease in damage to membrane structures and, naturally, to a decrease in the activity of PL A₂ in saliva.

Bakstims in the arsenal of therapy helps to remove radicals, thereby stimulating antioxidant protection, the latter is expressed in the normalization of the activity of enzymes such as CT and glutathione peroxidase. Antioxidant therapy has a positive effect on the oxygen balance and oxygen saturation of tissues, the amount of superoxide radicals decreases, which leads to the normalization of SOD.

The obtained data on parameters of free radical processes correlate well with clinical improvement in patients with sialadenitis.

Conclusions: In patients with sialadenitis, there was an increase in LPO and AOP of mixed saliva. Of bakstims in the complex treatment of patients with chronic

sialadenitis reduced the amount of superoxide radicals, damage to membrane structures and normalized the activity of the lipolytic enzyme.

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