

Clinical features of the course of local inflammation in the comorbid state of bronchial asthma and the effects of various modes of complex therapy

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Abstract—The aim of the research was to study the clinical features of the course of rapidly progressive periodontitis (RPP) combined with bronchial asthma and the effects of complex therapy. In the dynamics of the complex treatment, including propolis and resonance therapy against the background of basic treatment, a significant improvement in microcirculation and the degree of restoration of trophic disorders of the periodontal part of the teeth was established. Also, in these patients, the FVD indicators significantly increased.

Keywords—*periodontitis, bronchial asthma, treatment*

I. INTRODUCTION

A comprehensive analysis of the combined pathology of the oral organs, extra-progressive periodontitis and internal organs allows us to get an idea of the essence of the origin of many diseases of the oral cavity dependent on the somatic state. It has been proved that rapidly progressing periodontitis is pathogenetically closely related to the pathology of internal organs, and inflammatory and dystrophic-inflammatory periodontal lesions are largely secondary to systemic processes in the body that underlie a number of diseases of internal organs [1,2,6]. Local factors play the main role in the occurrence of oral cavity and periodontal pathology, but systemic processes that lead to profound significant changes in the internal environment of the body and structural damage to periodontal tissues also play an important role [1-5].

The progressive nature of bronchial asthma (BA), the development of disabling complications, which cause a significant share in the structure of temporary disability, disability and mortality,

represent an acute medical and social problem. Patients suffering from chronic bronchopulmonary diseases and rapidly progressing periodontitis need active exposure to natural biostimulants capable of strengthening and normalizing the physiological functions of the body, using all the variety of adaptive reactions [3,4,6]. In the domestic and foreign literature, there is practically no scientifically substantiated data on the possibilities of an integrated approach to systemic methods of treatment of rapidly progressive periodontitis combined with BA, which is due to the functional and industrial separation of dentists with doctors of other specialties. Significant advances in the treatment of BA with RPP in recent years have been associated with the use of phytopreparates and alternative therapies, which significantly improve the survival and life prognosis of patients with BA with rapidly progressing periodontitis [3].

However, not all the effects of propolis have been sufficiently studied. Nature is rich in medicinal products, plants, and licorice can be isolated from them. Licorice naked has been used for a long time for diseases of the bronchopulmonary system in the practice of oriental medicine. Avicenna very often mentioned propolis in his "Canons" as a means of "facilitating the work of organs with a cold" [4,6].

Propolis is able to have several beneficial effects at once. First of all, of course, we are talking about the presence of anti-inflammatory effects. In addition, medicines containing this substance have antiviral, antipruritic and immunostimulating effects. Antiviral action is carried out mainly against the following pathogens: human papillomavirus and some others [2,6]. The antiviral effect is based on the ability of propolis to interrupt the reactions of viral DNA synthesis at various stages of this process. As a result, the processes of assembling viral particles cannot reach the stage of complete completion,

which means that the causative agent of the disease will be deprived of the opportunity to reproduce. In addition, propolis blocks the processes of interaction between the virus and the target cell, which greatly complicates the penetration of the pathogen, where it can exert its harmful effects. In addition to the above, it should be noted the ability of propolis to enhance the reactions responsible for the processes of biosynthesis of interferons. These substances significantly reduce the susceptibility of healthy cells to viral particles, which inhibits the spread of pathology. All of the above effects are manifested even when using drugs in non-toxic dosages, which means that the risk of developing undesirable consequences of antiviral therapy is minimized [1,2].

Propolis preparations have high activity against the above pathogens. Unlike many other representatives of the group of antiviral agents, addiction rarely develops to such drugs, even despite the constant mutations of the pathogens of the disease. Propolis is a stimulant of nonspecific immunity. When exposed to this substance, phagocytic reactions responsible for the capture and destruction of foreign agents are activated [1].

Objective

To study the influence of propolis in the complex therapy of extra-progressive periodontitis in patients with BA.

II. MATERIAL AND METHODS

The selection of patients was carried out on the basis of a comprehensive examination, which included general laboratory, clinical and functional research methods, 42 patients with rapidly progressive periodontitis of mild and moderate severity and BA aged from 18 to 60 years were examined to solve the tasks. The severity of BA and basic treatment were determined according to the recommendations of the European Consensus of Pulmonologists [8], which provides for a unified assessment of severity according to FEV1 indicators and basic therapy (BT). All patients according to the method of treatment were divided into 2 groups: group I - 30 patients with BA with rapidly progressing periodontitis, against the background of basic therapy, they took propolis tincture (NP) for 15 minutes. before meals, 3 times a day; e/d, for 10 days;

II - group of 16 patients with BA with rapidly progressing periodontitis who took only BT. Also, all patients of the first and second groups received breathing exercises, chest massage, circular shower.

In addition to complex generally accepted clinical and laboratory examinations, special examination methods were additionally carried out for patients. During the dental examination, the following were assessed: trophic disorders, periodontal microcirculation, the degree of dental attachment disorders and the development of secondary adentia

on the background of periodontal disease. Control over the degree of dental plaque cleansing was assessed using erythrosine red.

The degree of bronchial obstruction was studied by spirometry on the device "Medic" of the company "E1ectromedica" with the measurement of indicators of FEV, MOS 75, MOS 50, MOS 25. The obtained data were processed by the method of variation statistics, the reliability of the differences was determined by the T - Student criterion.

III. RESULTS

Upon admission of patients with BA, changes from the periodontal parts in the oral cavity were revealed. Since the development and progression of BA is associated with a violation of trophic, microcirculation and biocenosis of oral tissues. In addition, the development of the disease leads to a rapid progression of dystrophic phenomena in the bone part of the periodontal, which causes a violation of the attachment of teeth and often leads to the development of secondary adentia against the background of periodontal disease.

The first stage of treatment of BPP was the appointment of an individual hygiene regime of the oral cavity, which provides for double brushing of teeth after meals (morning and evening), followed by monitoring the degree of dental plaque cleansing using erythrosine red, a toothbrush and paste were individually selected. Local therapy included the elimination of traumatic factors in the oral cavity: dental deposits, filling defects, defective prostheses. Individually, the basic therapy included antibacterial, anti-inflammatory therapy (rinsing the oral cavity with 0.06% chlorhexidine abigluconate solution, romazulane applications), therapeutic dressings with heparin ointment were used. In the presence of carious cavities, dental treatment was performed.

The state of the respiratory system of patients was assessed by the score system. The initial symptoms of patients with BA are characterized by the presence in patients of complaints specific to this pathology, respectively: the intensity of dry cough 1.15 ± 0.11 ; difficult-to-separate sputum 1.45 ± 0.12 ; shortness of breath 0.87 ± 0.07 ; chest pain 1.73 ± 0.12 , ($P < 0.001$). According to the sum of the aggregate scores of patients with BA (11.2 ± 0.5 points), they were assigned to a satisfactory condition.

The study of the function of external respiration in patients with asthma upon admission to rehabilitation showed a corresponding degree of severity of the disease of asthma - a decrease in the volume of forced exit (FEV), as well as a decrease in the most sensitive in early obstructive pathology of spirographic, indicators of maximum volumes of velocity after exhalation (MOS) of 25%, 50% and 75% and a decrease in the vital capacity of the lungs

The criteria for evaluating the effectiveness of NP were the degree of restoration of trophic disorders, microcirculation and the degree of dental attachment disorders and the development of secondary adentia against the background of periodontal disease, the degree of impaired lung function: relief of sputum from the respiratory tract; laboratory tests.

A repeated study after a complex of treatment, including NP therapy on the background of BT, showed a significant improvement in microcirculation, the degree of restoration of trophic disorders of the periodontal part of the teeth, the degree of dental attachment disorders and a decrease in the development of secondary adentia on the background of periodontal disease.

Also, in patients with group 1 BA, as can be seen from the interpretation, the FVD indicators not only significantly increased, but also approached the limits of the norm. This indicates an improvement in conductivity at all levels of the bronchial tree, hence a decrease in edema and occlusion of their mucus. Observations showed a direct relationship between functional and objective data after 10 procedures. When analyzing foci of chronic infection in the oral cavity, positive dynamics is observed, i.e., a decrease in the degree of trophic disorders and periodontal microcirculation. At the same time, a parallel dependence of the state of dental health on the severity of BA is determined. When assessing the score of the objective data, the sum of their totality in patients was 4.9 ± 0.4 points, ($P < 0.001$). As a result of non-drug therapy, there was a significant prolongation of the period of clinical remission of the disease by 4-5 times, and a significant delay in the progression of foci of chronic infection in the oral cavity.

As a result of the therapy carried out with different regimens, it can be stated that NP in combination with BT has a multifactorial effect on the body, including anti-inflammatory, bronchodilating, reducing the degree of violations of the attachment of zoos and the development of secondary adentia against the background of periodontal disease. It also helps to eliminate subjective and objective symptoms and lengthens the period of clinical remission of the disease. Consequently, the quality of life of patients with AD with BPP increases.

Taking into account the mutual aggravating influence of foci of chronic infection in the oral cavity and respiratory diseases, as well as the dependence of the state of dental health on the severity of AD, complex treatment of such patients should be carried out taking into account the standards of AD therapy and the algorithm of dental care.

IV. CONCLUSIONS

In patients with BA, it is necessary to take into account the mutual aggravating effect of foci of chronic inflammation in the bronchi on trophism and periodontal microcirculation.

In the dynamics of the treatment complex, including NP therapy on the background of BT, a significant improvement in microcirculation and the degree of restoration of trophic disorders of the periodontal part of the teeth was found. In these patients, the indicators of FVD not only significantly increased.

LITERATURE:

1. Alavi A.L., Rakhimova D.A., Khamrabayeva F.I., Khalilova H.M. "Non-drug therapy in the correction and prevention of diseases of internal organs". Methodical manual. - Tashkent, 2014. 74 s
2. Zhumaev S.Yu. Influence of complex therapy regimens in chronic generalized periodontitis in patients with chronic obstructive pulmonary disease. // "Internauka". Moscow, 2020.- No.39133
3. Karimov U. A. The effectiveness of phytotherapy in accordance with the diagnosis of pulmonary patients. //Journal of AVISENNA. 2012.pp.77-79.5
4. Rizaev Zh.A., Rakhimova D.A., Zhumaev S.Yu. Features of periodontal tissue lesions in patients with chronic obstructive pulmonary disease. //International Journal "Health, demography, ecology of Finno-Ugric peoples". Izhevsk, 2020
5. Sadykova G.A., Abdullaev A.H. "Modern approaches to rehabilitation of patients with chronic inflammatory diseases of the respiratory system". Methodical manual. - Tashkent, 2014. 37 p.
6. Ubaydullaev A.M., Alavi A.L., Rakhimova D.A. Parameters of psychovegetative regulation in COPD patients// Therapeutic Bulletin of Uzbekistan, materials of the conference –Tashkent, 2014. -No. 4. – p. 148.
7. Stage rehabilitation of diseases of the cardiorespiratory system/ Alavi A.L., Sadikova G.A. et al. / Monograph. - Tashkent, 2016. 68 p.
1. Rakhimova.D.A ,Kasimova G.M, Kaymova Y.D. Condition metabolic balance disturbance in patients with cor pulmonale diseases . "Journal of life-sciences". - Argentina, 2012. - №2. - P. 164-167.
2. Rakhimova.D.A, Kasimova G.M,Estimation og psyhovegatative factors of regulation in patients with chronic obstructive pilmonale deseases. "Journal of life-sciences". - Argentina, 2012. - №4, - P. 457-461.
3. Rizaev J.A., Rakhimova D.A., Jumaev S.Yu . Influence of various treatment regimens on functional-oxidation dysfunction and hipoxy celle cutanea in patients with chronic obstructive pulmonary diseases and parodontitis // International Journal of Pharmaceutical Research. India, 2020 . №12 , P 1276-1279.
- 4.

5. Optimal assessment: and management of COPD N. M., Sivakas, B. R.. Prid , e1c // The European Respiratory Journal - 2017 , -№8 , -P. 1398-1420

6. The aim of the research was to study the clinical features of the course of rapidly progressive periodontitis (RPP) combined with bronchial asthma and the effects of complex therapy.

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