



Assessment Of the Effectiveness of Complex Treatment of Chronic Generalized Periodontitis Associated Chronic Obstructive Pulmonary Disease

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ABSTRACT

This article has proven the clinical effectiveness of complex pathogenetic treatment of chronic generalized periodontitis associated with chronic obstructive pulmonary disease. Clinical improvement in the condition of periodontal tissues in COPD after a course of ozone therapy is mediated by both the positive dynamics of the course of the background disease and the direct immunomodulatory, antihypoxic and antibacterial effects of medical ozone on periodontal tissues.

Keywords:

Chronic generalized periodontitis, chronic obstructive pulmonary disease, resonance therapy, ozone therapy, hygienic indices of periodontal tissue

The relevance of research. Currently, a combination of chronic nonspecific diseases of the respiratory system and chronic generalized periodontitis (CGP) is observed in 17.7-28.0% of cases. Chronic generalized periodontitis is an important medical and socio-economic problem of modern society [2,5].

The frequency of chronic periodontitis is 62-94%, is steadily increasing and depends on the environmental characteristics of the region, age, social conditions (Admakin O.I., Mamedov A.A., 2004; Solovyova A.M. et al., 2005), the presence of background diseases of the subject contingent. Numerous factors are important in the formation and course of periodontal diseases (Orekhova L.Yu. et al., 2008), which help reduce the body's reactivity and lead to the development of secondary immune deficiency [1,5].

Over the past decade, research work has been devoted to the prevention of chronic obstructive pulmonary disease (COPD) with CGP and its early complications (Ubaydullaev A.M., Alavi A.L., Sadikova G.A., Liverko I.V., Rakhimova D.A.), these studies also examined the problems of the development of diseases of the

respiratory system, associated metabolic disorders, prevention of ventilation-perfusion disorders in COPD patients with CGP and alternative treatment options [1,3,4,5]. Early detection of CGP in chronic obstructive pulmonary disease, the impact of this condition on the quality of life of patients, and its pathogenetic aspects have not been fully studied, which in turn indicates the relevance of research on these issues.

Purpose of the study: to evaluate the effectiveness of complex pathogenetic treatment of chronic generalized periodontitis associated with chronic obstructive pulmonary disease.

Materials and methods: the age of the examined patients with periodontitis ranged from 37 to 66 years (the average age in the main group was 54.32 ± 0.84 years, in the comparison group - 46.23 ± 1.12 years). After a preliminary examination, all patients with periodontitis and COPD were divided into two groups: Group 1 consisted of 44 patients with periodontitis associated with COPD, who received only standard dental treatment and therapy for exacerbation of COPD; Group 2 included 45

patients with periodontitis associated with COPD. background of COPD who received dental treatment, basic therapy for COPD, resonance therapy (narrow-spectrum infrared emitters locally, 2 times a day for 6 minutes) and glycerosin (glycerosin 15 mg OOO "LAFZ" Uzbekistan 1 tablet 3 times a day) day) against the background of basic therapy) and ozone therapy (partially ozonated olive oil "Extra-virgin" application to the gums for 30 minutes x 2 times a day, 30 minutes after meals and intravenous administration of ozonated saline solution at a dose of 200 mg/day, 1 time per day; ozonator "Asia"). The dynamics of indicators were carried out on the 14th day from the start of treatment, 2 months from the start of therapy and 6 months after its completion.

Together with therapists, the structure of basic therapy was developed: β -agonists + anticholinergic inhaler were taken by 59% of patients, antileukotrienes by 58% of patients, methylxanthines by 56% of patients, β -agonists by 41%, glucocorticosteroids by 41%, glycerosin by 26% of those examined.

Clinical examination of all participants was carried out according to generally accepted methods, taking into account WHO recommendations (2016). An objective assessment of the condition of periodontal tissues was carried out using the following indices: OHI-S (Green J.C., Vermillion J.R., 1964), PI (Russel A., 1956) and PMA (Parma G., 1960), hygienic index (Silness-Loe) and index bleeding (Muhlemann-Cowell).

In a clinical study, the following were analyzed: periodontal symptoms of varying intensity - pain, inflammation of periodontal tissue, bleeding, (Cr), purulent discharge from the periodontal pockets and changes in their structure (IS), bad breath (BA), redness of periodontal tissue (Pokr), pathological mobility of teeth and their displacement.

Results and discussions. Clinical and instrumental analysis of the condition of periodontal tissues made it possible to establish that there is a clear relationship between the severity of generalized periodontitis and COPD, the degree of respiratory failure (RF) and the stage of chronic pulmonary heart disease (CPP). Inflammatory periodontal diseases are more

severe against the background of severe COPD and are characterized by the development of moderate periodontitis in 56.6% or severe periodontitis in 39.6% of patients. In COPD of moderate severity, moderate (60%), mild (24%) and severe periodontitis (16%) was diagnosed. Mild COPD was more often associated with the development of mild periodontitis - 62.2% or moderate - 37.8% of cases. In cases of DN I-II degrees and decompensated CHL, periodontal damage is more severe than in patients with compensated functions of the respiratory and cardiovascular systems. The results obtained indicate the important role of DN and hypoxemia in the development and course of periodontitis against the background of COPD.

Patients with chronic generalized periodontitis associated with COPD were divided into two groups, equal in age, severity of the pathological process in the periodontal tissue and bronchopulmonary system. Group I consisted of 30 patients with moderate periodontitis and 14 with severe periodontitis due to COPD, who received only standard dental treatment and basic therapy for exacerbation of COPD; Group II included 30 patients with moderate periodontitis and 15 with severe periodontitis on the background of COPD, who received basic therapy for COPD, dental treatment, advanced complex therapy: resonance therapy, glycerosin tablets, ozone therapy and intravenous administration of ozonated saline solution at a dose of 200 mg /day, 1 time per day.

The results of the studies showed the high clinical effectiveness of complex treatment of patients with chronic periodontitis in combination with COPD. Against the background of complex treatment with the use of medical ozone, a more rapid and complete clinical restoration of the periodontium was observed (according to the dynamics of its index assessment) and an improvement in external respiration in comparison with the results of standard therapy alone. Relief of inflammatory manifestations of periodontitis was observed after 8-18 days, on average - after 14.23 ± 0.42 and 11.69 ± 0.37 days, respectively, in patients of groups I and II ($p < 0.05$).

In patients with periodontitis and COPD, we performed a number of necessary surgical sanitation procedures: open curettage (70 people - 78.7%), gingivotomy (9 people - 9.1%), gingivectomy (5 people - 5.6%), flap operations (10 people - 11.2%). Analysis of the course of the postoperative period allowed us to state that in patients of group II the disappearance of pain and collateral tissue swelling occurred on the 3.2 ± 0.3 day, while in group I - on 5.7 ± 0.3 days ($p < 0.05$). Healing in the area of surgical intervention in patients of group II who received ozone therapy was observed after an average of 8.1 ± 0.4 days, while in group I - after 10.7 ± 0.5 days ($p < 0.001$).

Remission of moderate and severe periodontitis due to COPD was achieved 2 months from the start of treatment in 42 (93.3%) patients receiving complex treatment with ozone therapy. This was significantly more common than in patients of group I, when remission of periodontal disease was found in 31 (70.5%) patients ($p < 0.05$). Orthopantomography in all patients, upon achieving clinical remission of periodontal disease, revealed stabilization of the pathological process.

Consequently, the clinical effectiveness of treatment for CGP in patients with COPD was higher in patients who received ozone therapy along with basic treatment. It is possible that the clinical improvement in the condition of periodontal tissues in COPD after a course of ozone therapy is mediated by both the positive dynamics of the course of the background disease and the direct immunomodulatory, antihypoxic and antibacterial effects of medical ozone on periodontal tissues.

6 months after complex treatment, remission of periodontitis was found in 27 (61.4%) patients with moderate and severe periodontitis associated with COPD, who received only standard therapy.

Thus, in the dynamics of treatment of patients with CGP in combination with COPD with an improved program of complex therapy, positive changes were more significant compared to the traditional treatment group: normalization of clinical symptoms, reduced risk of progression and exacerbations of the disease.

CONCLUSIONS: If 41% of patients with COPD + CGP were diagnosed with a severe and 9% with an aggressive form of chronically generalized periodontitis, then in patients without COPD the figures were statistically significantly lower and amounted to 8% and 1%, respectively. It was also revealed that in patients with varying severity of periodontal damage, compared with mild periodontitis, the intact periodontal form is 15.5% superior.

Remission of moderate and severe periodontitis due to COPD was achieved 2 months after treatment and preventive measures in 93.3% of patients, which is 24.6% more than in patients of group I.

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