



The Effectiveness of Therapeutic and Prophylactic Measures in Patients with Chronic Generalized Periodontitis in Women During Menopause

1. F. A. Turaeva

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^{1,2} Bukhara State Medical Institute

Abstract: A special place in the structure of dental morbidity is occupied by the pathology of the periodontal complex, in particular chronic generalized periodontitis, which, according to WHO, is in second place in terms of frequency of spread, among all dental diseases, second only to caries. The first signs of periodontal inflammation begin to appear already in young years, and by the elderly period, the prevalence of periodontal diseases reaches values tending to 100% (Karlash A. E., 2017; Avetisyan A. A., 2018, Ibragimova L. K., 2019, Sokolova I. I., Savelyeva N. N., 2013; Locker D. et al., 2000). According to the literature data, in 78.7% of cases, women who applied for dental care for periodontal diseases are women (Gorbacheva and A, et al., 2017), and their highest prevalence is observed in estrogen-deficient conditions, in particular in the postmenopausal period (Redionova T L, Leontieva E Yu, 2014).

In recent years, it has been proven that estrogen deficiency in women in the postmenopausal period of life has a significant impact on the condition of periodontal tissues (Oreshaka O V, et al., 2018). Among those who have sought dental care for periodontal diseases, more than half are women, the disease most often occurs and progresses during the postmenopausal period (Dodd D. Z., Rowe D. J., 2019). Among the causes of the development and progression of periodontal pathology in postmenopause, the authors point to an increase in microbial contamination in conditions of acquired immunodeficiency, a violation of neurotrophic regulation, but most researchers associate the progression of periodontitis with a decrease in the bone mineral density of the axial skeleton, postmenopausal osteoporosis and alveolar bone resorption (Varshavsky B. Ya. et al., 2016; Baelum V., Lopez R., 2018). Osteoporotic changes that occur in various parts of the skeleton in postmenopausal, affect the bone tissue of the maxillary system, contributing to the development and progression of periodontal diseases. The search for methods of regulating bone metabolism in periodontitis drew the attention of dentists to antiresorptive agents. Taking into account the effects of bisphosphonates, it is possible to use these drugs for the treatment and prevention of bone resorption in patients with periodontitis. (Rocha M.L. et al., 2014). It has been shown that the use of these drugs allows achieving effective results in the treatment of patients with generalized periodontitis, stopping the progressive loss of the alveolar ridge and stimulating the processes of reparative regeneration (Palomo L. et al., 2017). In connection with the above, the relevance of an in-depth study of the clinical, pathogenetic features and optimization of the treatment of chronic periodontitis against the background of postmenopausal osteoporosis is obvious. Currently, periodontal researchers are showing great interest in the use of platelet cytoplasm (TAP) in the treatment of periodontal tissue lesions (R. R. Akhmerov et al., 2013; E. D. Shikhnabieva, 2015). Platelet-based autologous plasma has a number

of useful properties: it accelerates tissue regeneration, has an anti-inflammatory effect. The above-mentioned problems are also relevant in the Republic of Uzbekistan, there are few scientific papers devoted to this problem in the literature. In connection with these arguments, the solution of the above problems through the implementation of the planned research work is timely and relevant.

The implementation of this dissertation work is planned according to the plan and topics of research works of the Abu Ali ibn Sino Bukhara State Medical Institute for 2017-2021: "Development of new approaches to early diagnosis, treatment and prevention of pre-pathological and pathological conditions of the body in the hot climate of the Bukhara region".

Introduction

The issues of etiology and pathogenesis of chronic generalized periodontitis are interpreted from the point of view of the total impact of local and general factors, which include hormonal changes, especially pronounced in the postmenopausal period (Grudyanov A. I., 2019). It is proved that the lack of estrogen levels in the postmenopausal period contributes to the imbalance between resorption and bone formation, which leads to accelerated bone loss, the development of osteoporosis and its complications. At the present stage, the relationship between the bone mineral density of various parts of the skeleton and the height of the alveolar ridge in the interproximal sections has been revealed (Belokopytova V. V. 2017, Kuryakina N. V., Kutepova T. F. 2014). Systemic metabolic shifts caused by hypoestrogenemia directly affect the tooth pulp, periodontal tissue, and contribute to the development of osteoporosis throughout the skeleton, including in the bone tissue of the jaws. Moreover, with hypoestrogenemia, the loss of the spongy substance of the jaw bone occurs faster, and then a slower loss of cortical bone tissue develops, which is more characteristic of age-related changes (Melenberg T. In 2017, Novaes A. B. Jr., Novaes A. B. 2015). Estrogens affect cell proliferation, differentiation, keratinization of the gingival epithelium. Fluctuations in the level of sex hormones during menopause are considered factors of both inflammatory changes in the gum, and dystrophy, hypertrophy and atrophy (Orwoll E. S., et al., 2013).

Thus, sex hormones have a serious impact on the occurrence, course and progression of periodontal diseases. It should be noted that the negative effect of reducing the concentration of sex hormones on periodontal diseases can be minimized by a high level of oral hygiene and hormone replacement therapy.

Despite a fairly large number of studies devoted to this topic, the true mechanism of the effect of sex hormones on the course of chronic generalized periodontitis has yet to be clarified. The relevance and insufficient degree of development of these problem areas predetermined the choice of goals and objectives of this study.

The purpose of the study: to study the risk factors for the development of chronic generalized periodontitis in different phases of the menopausal period and to evaluate the possibilities of correcting the identified violations of complex treatment with alendronic acid, the use of estrogen replacement therapy and the simultaneous use of platelet cytoplasm.

Research objectives:

1. To study the frequency, features of chronic generalized periodontitis and risk factors for its development in women in different phases of the menopausal period.
2. To give an index assessment of the state of periodontal tissues, laboratory blood parameters in women with varying degrees of severity of chronic generalized periodontitis in the postmenopausal period
3. To study the instrumental parameters of bone mineral density and strength, to identify significant risk factors for alveolar process resorption in postmenopausal patients with chronic generalized periodontitis by densitometry

4. To evaluate the effect of complex therapy of postmenopausal systemic osteoporosis with the use of alendronic acid, estrogen replacement therapy on the state of periodontal bone mineral density and the course of chronic generalized periodontitis.
5. To develop an algorithm for the use and practical recommendations for the use of platelet-rich autoplasm in the complex treatment of chronic generalized periodontitis against the background of the use of alendronic acid, hormone replacement therapy with estrogens.
6. To determine the clinical and economic effectiveness of a new treatment regimen for chronic generalized periodontitis in postmenopausal patients.

The object and subject of the study.

A clinical and X-ray study of 160 women with chronic generalized periodontitis during menopause will be conducted, taking into account the bone mineral density. In the postmenopausal period, the indicators of hygiene indices that progress with an increase in the severity of chronic generalized periodontitis will be studied. The relationship between the values of the periodontal index and the values of bone mineral density will be studied. To assess the possibility of drug correction of mineral metabolism, patients with chronic generalized periodontitis against the background of postmenopausal osteoporosis will be divided into 2 groups;

- 1) 80 patients of the Abudut group, in complex treatment, additionally take alendronic acid, hormone replacement therapy with estrogens.
- 2) 80 patients of group B-along with taking alendronic acid, hormone replacement therapy was used with the local use of platelet cytoplasm.

Methods and techniques

For X-ray examination of the dental system, patients will undergo orthopantomography, which will assess the degree of resorption of the interalveolar septa relative to the length of the tooth root.

Densitometric monitoring will be performed to diagnose osteopenia and osteoporosis in patients.

Statistical processing of the results of the study was carried out using a standard package of statistical analysis applications SPSS 17, Statistica 6. To compare the average values, the Student's t-test, the Mann — Whitney test will be used with the calculation of a new critical significance level. The Pearson linear correlation coefficient (r) will be used as a criterion for the statistical dependence between the studied parameters.

For the first time, the frequency and features of chronic generalized periodontitis and risk factors for its development in women in different phases of the menopausal period will be studied.

For the first time, instrumental indicators of bone strength were analyzed by the method of densitometry and significant risk factors for resorption of alveolar processes were determined in patients with chronic generalized periodontitis in patients in the postmenopausal period.

The effectiveness of the effect of complex therapy of postmenopausal systemic osteoporosis with the use of alendronic acid, hormone replacement therapy with estrogens on the condition of periodontal bone tissue and the course of chronic generalized periodontitis will be evaluated. For the first time, an algorithm for the use and practical recommendations for the use of platelet-rich autoplasm in the complex treatment of chronic generalized periodontitis against the background of the use of alendronic acid, hormone replacement therapy with estrogens will be proposed.

Conclusion

New criteria for the diagnosis and evaluation of the effectiveness of treatment of generalized periodontitis against the background of postmenopausal osteoporosis will be proposed, taking into account clinical criteria, biochemical markers of bone remodeling. In patients with generalized

periodontitis on the background of postmenopausal osteoporosis, modern densitometric monitoring in postmenopausal women will be used for an early assessment of bone mineral density and the effectiveness of therapeutic measures, along with orthopantomography

In patients with postmenopausal osteoporosis suffering from chronic generalized periodontitis, in order to induce prolonged remission of periodontitis and stabilize osteoporosis, the use of zledronic acid in combination with the drug "Calcium DZ", hormone replacement therapy with drospiderone estrogens and local use of platelet cytoplasm will be proposed. The clinical and economic efficiency of the new treatment regimen for chronic generalized periodontitis in postmenopausal patients will be evaluated and presented.

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