



PATHOGENESIS OF PERIODONTAL DISEASE IN ELDERLY WOMEN

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Annotation. During menopause, irreversible changes in the hormonal function of the ovaries occur, the concentration of estrogens decreases.

It is during this period that a progressive increase in various diseases is noted [8]. The study of the dental status in menopausal women has proven the existence of a relationship between a decrease in estrogen concentration and a sharp increase in dental diseases [4]. Because the oral mucosa and salivary glands contain estrogen receptors, changes in hormonal levels can be seen directly in the mouth. Leimola-Virtanen et al confirmed the presence of estrogen mRNA and immunoreactive protein in the oral mucosa and salivary glands, which also confirms its biological role [11].

Thus, the climacteric period is characterized by a disorder of metabolism and function in the tissues of the oral cavity [6]. As a result, tooth loss, periodontal disease, increased bone resorption of the alveolar processes are observed.

The purpose of the study: to study the clinical and microbiological manifestations and mechanisms of development of dental diseases in postmenopausal women.

Material and methods: we examined 40 postmenopausal women with various diseases of the oral cavity. The control group of patients were women who are not in the postmenopausal period with dental diseases.

Results and discussions: All participants of the study underwent a comprehensive examination: hygienic and periodontal indices (OHI-S hygiene index, PI periodontal index), pH of mixed saliva was measured, sialometry was performed according to the method of M.M. Pozharitskaya, studied the microflora of the oral cavity by PCR (polymerase chain reaction).

When collecting anamnesis, it was revealed that most often women of group I complained of bleeding gums (13.3%) and bad breath (6.7%). Group II patients complained of bleeding gums (66%), bad breath (43.9%), exposure of the roots of the teeth (15.3%), tooth mobility (16.1%), and 40% of women had complaints of dry



mouth. While 26.7% of postmenopausal women taking HRT complained of bleeding gums, 18.1% complained of dry mouth and bad breath.

According to the results of the survey, postmenopausal women taking HRT 2.3 times less complained of bleeding gums (27.7%) and dry mouth (17.1%) compared with women not taking HRT (63%; 40% respectively). 18.1% of women taking HRT noted bad breath, which is 2.5 times less than women not taking HRT (43.9%), but 3 times more than in the control group (5.8%). Postmenopausal women, regardless of whether they take HRT or not, were 3 times more likely to have a white coating on the tongue (18.1%, 15.3%, respectively) than women in the control group (6.7%). Burning sensation in the oral cavity was noted by 5.7% of women in group II and 3.9% in group III.

Attention was also paid to the TMJ, noting the symmetry of the face and movements of the mandible when opening the mouth, pain when moving the mandible, and the range of vertical and lateral movements of the mandible. In 22.6% of group I 49, in 40% of group II and 45.7% of group III women, a deviation was observed, manifested by a displacement of the lower jaw to the side at the beginning and a return to the midline in the middle of opening the mouth by 2 mm. None of the subjects had limited range of vertical and lateral movements. 2.9% - group I, 14.3% - group II and 11.5% - group III sometimes noted clicks during the movement of the lower jaw.

Findings. Thus, the greater sensitivity of the above indices is associated with the peculiarities of the pathogenesis of menopause, namely with estrogen deficiency. The content of estrogen receptors on the oral mucosa plays a direct role in the development of dental diseases [9]. During menopause, the angioprotective effect of estrogens weakens, followed by damage to the structures of the hemomicrocirculatory bed. Also during this period, the production of osteoclasts increases, the production of osteoblasts decreases, the absorption of calcium in the intestine decreases, the lack of vitamin D, which leads to increased bone resorption.

Due to estrogen deficiency, there is a decrease in intestinal absorption of calcium in the body, which in turn leads to disturbances in the regulation of calcium-phosphate metabolism and increased calcium release not only into the blood serum, but also into saliva [6]. Therefore, a high concentration of calcium in the saliva of menopausal women can lead to faster plaque mineralization and, consequently, to an increase in stone formation, which has a direct impact on the progression of gingivitis and periodontitis [9;1]. Thus, the pathogenesis of menopause affects the state of all structures of the oral cavity.



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