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LATEST METHODS OF STUDY OF PERIODONTAL DISEASE IN WOMEN

Gubayev Mukhidin Sarimsokovich
Samarkand State Medical University, Uzbekistan

ABOUT ARTICLE

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Abstract: Many studies have shown that a decrease in the concentration of estrogen leads to osteoporosis of the bones of the skeleton, which is characterized by a decrease in bone mass and a decrease in its density, which in turn may be a risk factor for the progression of periodontal disease. According to the study results, the most common dental disease among women during menopause is periodontitis, which, according to some studies, occurs in 80% of women. Periodontal disease, the cause of most cases of tooth loss, is a chronic focus of infection that adversely affects physical health and quality of life in general. According to most researchers, the most important role in the development of periodontology is assigned to microbial factors.

INTRODUCTION

The age of onset of natural menopause was found to depend on genetic factors related to the region of residence, ethnicity, socioeconomic status, way of life and culture.

Early periods of natural menopause are associated with a reduced risk of breast, ovarian cancer and, conversely, an increased risk of cardiovascular disease, atherosclerosis, stroke and osteoporosis. Mortality from all causes was found to decrease by 2% for each subsequent year of menopause. The risk of death in postmenopausal women is 2-3 times higher than in men of the same age. It reveals a tendency to slow onset of menopause with excessive weight. This is due to the high levels of estrogen in overweight and obese women, which can lead to a delay in menopause.

Most researchers believe that the disappearance of ovarian function is genetically programmed. In a lifetime, the number of follicles embedded in the ovary gradually decreases. Thus, the function of the hypothalamic-pituitary system changes for the second time in response to the lack of estrogen. Due to increased secretion of gonadotropins in the hypothalamus and increased secretion of gonadotropins in the pituitary gland, the synthesis of estrogen and progesterone gradually decreases in the process of complex functional and biochemical changes that lead to the depletion of follicles and resistance to gonadotropin stimulation.

Estrogen deficiency plays a pathogenic role in many diseases. It should be noted that the first changes in the cardiovascular, skeletal, and central nervous systems have already begun before menopause. During this period, the production of osteoclasts increased, the production of osteoblasts decreased, the absorption of calcium in the intestine decreased, and vitamin D deficiency increased bone resorption [6]. Menopause is the period during which mood disorders of varying severity occur, from a slight decrease in mood and anxiety to depression. The main symptoms and signs of menopause are divided into 2 groups: early and late. Early symptoms include hot flashes, sweating, depression, excitability, irritability, sleep disorders, memory loss, and dry mucous membranes. Advanced symptoms include metabolic (central and abdominal fat deposits), cardiovascular (atherosclerosis), skeletal muscle (accelerated bone loss - bone loss, osteoporosis, increased risk of fractures, decreased nodules).

MATERIALS AND METHODS

We plan to study 75- to 35-year-old women aged 60 as subjects. The topic of this study is clinical and laboratory instrumental assessment of the state of periodontal disease, as well as the state of bone density and blood circulation in periodontal tissues.

In this work, modern methods of collecting and processing materials are used, statistical processing of the results obtained is carried out.

The diagnosis of periodontal disease consists of examination of the patient, assessment of the state of the teeth and periodontal (measurement of the depth of the periodontal pocket, bleeding gums, periodontal hygiene index), X-ray examination to determine the level of the alveolar bone However, conventional diagnosis does not allow to identify highly sensitive patients at risk of disease progression. Therefore, it is necessary to establish effective markers that indicate the progression of periodontitis.

According to modern ideas, the development of periodontal disease is accompanied by the appearance of certain flora. This is the root cause of periodontal disease.Intermedia, T.forsythia, T.denticola, A.actinomycetemcomitans, R. et al.Caused by endotoxins produced by Exotoxins and gingivalis, leading to the destruction of gingival tissue and alveolar processes The main diagnostic types of gum pathogens are microscopic, bacteriological and molecular genetic. Microscopic methods give the general characteristics of the microflora and do not allow to determine the type of bacteria. Traditional microbiological methods for the study of periodontal disease include sowing microorganisms in a special nutrient medium, subsequent identification and identification of species. They have a number of disadvantages: they are limited to explaining the irreversible process of tissue destruction, and the duration of the study is 5-7 days. It is necessary to use a certain nutrient medium, and special conditions are created for your culture.Early detection of microorganisms, prevention of prevalence to prevent inflammation - destructive processes in periodontal tissues are an urgent task in modern dentistry. To date, the most accurate and modern diagnostic method is the molecular genetic method, in particular the polymerase chain reaction (PCR), which allows to achieve a significant increase in the concentration of a small number of specific fragments of nucleic acids (DNA) in the biological material.

RESEARCH RESULTS AND THEIR DISCUSSION

Depending on the purpose of the study and the purpose of the work, all patients participating in the study underwent a comprehensive examination, which included the collection of medical history, the study of the clinical and radiological state of the oral cavity and periodontal tissues, and the study of the periodontal pouch flora. The clinical examination of the patient began with the collection of anamnesis. Pay particular attention to the genetic burden of periodontal disease, assess the general health of the patient, metastatic and concomitant diseases, take medications, bad habits (smoking, abuse of carbohydrate foods, etc.).The presence of). During the investigation and collection of anamnesis, the patient's complaints and their nature were revealed (bleeding gums, the nature of appearance: dry mouth during meals or when brushing teeth, allergies on the teeth, dental problems).

During an external examination of the patient, the composition of the face, the color of the skin, the red border of the lips and palpation of local lymph nodes are evaluated. The condition of temporomandibular joint disease was also examined, and the movement of the jaw, the number of clicks, and the nature of the pain were evaluated.

The position of the reins and ropes was assessed, the depth of the vestibule was checked during the examination of the oral cavity, the tongue, palate and tonsils were checked. The condition of the oral

mucosa, its color and moisture level were evaluated. Pathological changes in the mucous membrane were detected. When registering a dental row, record the presence of caries, filled and removed teeth, splint structures, removable and non-removable orthopedic structures, conduct an indicative assessment of the state of periodontal tissues. They also noticed the presence of non-carious lesions of the teeth: erosion, wedge-shaped defects, pathological tooth erasure.The findings showed that, compared with women who did not take (60%; 40%, respectively), postmenopausal women who took hrt complained of bleeding gums (25.7%) and dry mouth (17.1%) 2.3 times less. 17.1% of women taking Hrt reported bad breath, 2.5 times less (42.9%) than women who did not take hrt, but more than 5.7 times more than in the control group (3%). postmenopausal women, regardless of whether they took HRT or not, were 5.7 times more likely to notice white plaque on the tongue than in the control group (3%) (17.1% and 14.3%, respectively). 5.7% of women in the second group and 2.9% in the third group.Women notice a burning sensation in the mouth

CONCLUSION

In the past 10 years, women's life expectancy has increased significantly, so most of them, that is, 1/3 of their life expectancy, are postmenopausal. Women's health is a common health problem. The average age of menopause in the group of women who did not take HRT in our study was 50.97±1.9, compared with 51.12±1.8 in the group who took Hrt, which was compared with V.P.The data of Smetnik and his co-authors on the indicators are consistent.

The harmful symptoms noticed by patients during this period are due to the result of some systemic processes occurring in the female body, that is, the cessation of endocrine activity of the ovaries.

It is known from the literature that the oral mucosa contains estrogen receptors. As a result, hormonal changes can affect the development and progression of dental diseases. Estrogen deficiency affects the maturation of the epithelium of the oral mucosa, which leads to its thinning and atrophy, making it more susceptible to local mechanical damage. Due to atrophic changes in the oral mucosa, postmenopausal women develop diseases such as burning mouth syndrome, Wilson lichen, idiopathic neuropathy and candidiasis, which are caused by increased colony formation of microorganisms in patients with reduced salivation.

Currently, perimenopausal patients use hormone replacement therapy aimed at reducing bone loss, preventing osteoporosis and improving the condition of the teeth - an effective way to treat the symptoms of oral menopause.

In this regard, the purpose of our study is justified: to increase the effectiveness of dental treatment for postmenopausal women, based on determining the characteristics of the dental condition, which depends on taking hormone replacement therapy drugs.

Due to the relevance of the problems identified as a result of the analysis and systematized results of the scientific literature, we need early detection of menopausal symptoms in the oral cavity, which, based on the survey of respondents, provides a comprehensive assessment of the condition of the teeth of women during menopause, depending on the use of hormone replacement therapy. In our study, the most common and major complaints in postmenopausal women were bleeding gums (II-60%; III-25.7%), dry mouth (II-40%; III-17.1%) and bad breath (II-42.9%; III-17.1%). Previous studies have shown that burning mouth syndrome is considered one of the main oral problems in women during menopause Dry mouth is one of the main causes of oral discomfort. It often occurs in postmenopausal women and is directly related to changes in the amount and/or quality of saliva. .In In the Rukmini study, 57.5% of postmenopausal women complained of dry mouth. Other less common symptoms associated with menopause include changes in taste, saliva viscosity, and pathological changes in mucous membranes such as lichen planus, benign mucosal pemphigus, and Sjoegren's syndrome.

Many studies have proved the need to choose separate additional oral hygiene products, since the main etiology in the development of dental diseases is the pathogenic effect of biofilm flora, its formation and poor-quality oral hygiene care. In our study, as an additional means of oral hygiene, study participants were most often treated with mouthwash (I-31.4%, II-42.6%, III-51.4%), dental floss (I-40%, II-37%, III-26.6%) and toothpicks (I-28.5%, II-66.7%, III-60%), and 14.3%). (I-0%; II-5.7%; III-2.8%), and none of the study participants used a tongue scraper.

In Z.S. Budaichieva's work, 53.1% of participants used rinsing agents as additional hygiene products, 44.9% used toothpicks, 23.6% used tongue scrapers, 7.7% used dental floss, 6.4% used interdental brushes and 4.4% used rinsing devices. Z.S.Budaichiev and our own research results show that most respondents do not use endodontic hygiene products: interdental brushes and irrigators [7]. This may be due to a low level of dental education and a lack of awareness of the choice of personal hygiene products.

Our research shows that postmenopausal women who do not take hrt have very high levels of caries intensity (CPI index = 17.8±5.15) and women who take HRT have very high levels of caries intensity (CPI index = 15.45±5.2). At the same time, there was no significant difference between the group of patients taking HRT and the group of patients not taking HRT. Previous studies on the effects of

menopause on the intensity of caries revealed statistically significant differences between postmenopausal women and women of childbearing age.

Studies on hygiene in postmenopausal women show a low level of oral hygiene. The OHI-s female hygiene index (OHI-S = 2.99±0.99) for women who did not take HRT was twice as bad as for women who took hrt (OHI-S =2.24±1.4), which was 1.73±1.1 times worse than the control group (OHI-S: 1.7±1.1). Statistically significant differences were shown between groups I and II and between Groups II and III ($p<0.05$). There was no statistically significant difference between group I and Group III ($p>0.05$). This is consistent with data from other authors on menopause and violations of oral hygiene.

J.N.Rukmini and his co-authors studied the condition of teeth in postmenopausal women and women with regular menstrual cycles. 82.5% of postmenopausal women had poor oral hygiene, compared with 6% of women in the control group and 2.5% of postmenopausal women. Good oral hygiene - 67.5%. Hygiene of the control group.

Risk factors for osteoporosis have been identified in more than 80% of perimenopausal women [5,3]. Hormonal fluctuations that increase the level of bone tissue assimilation lead to a decrease in the mineral content of the bone matrix and bone tissue. As a result, bone density decreases, which leads to fractures. On the contrary, periodontitis is characterized not only by resorption of the alveolar bone, but also by inflammatory processes in the periodontal cavity. Osteoporosis and periodontitis are chronic multifactorial diseases that cause bone loss. Local and systemic factors can worsen bone loss.

The data obtained show that periodontal conditions in postmenopausal women deteriorated and there was a statistically significant difference between groups not taking HRT, reflecting a 2-fold increase in group ii disease (PI: 2.31 ±1.29, and this is a statistically significant difference between groups not taking hrt).

The data obtained are consistent with the data of other authors. In his study, D.Deep revealed that the average periodontal index PI for postmenopausal women was 4.34, which corresponds to the severity of periodontal disease. Thus, the higher sensitivity of the above indicators is associated with the specificity of the pathogenesis of menopause - estrogen deficiency. The content of estrogen receptors on the oral mucosa plays a direct role in the development of dental diseases. During menopause, the vasoprotective effect of estrogen weakens, followed by damage to the structure of the bloodstream. Also, during this period, the production of osteoclasts increases, the production of osteoblasts decreases, the absorption of calcium and vitamin D deficiency in the intestine decreases, the absorption of bone tissue increases.

To conclude: Due to estrogen deficiency, calcium absorption in the body through the intestine decreases, which leads to impaired regulation of calcium phosphate metabolism, and calcium release increases not only in serum, but also in saliva. As a result, a high concentration of calcium in the saliva of a woman during menopause leads to faster calcification of the plaque, thereby a direct shadow on the progression of gingivitis and periodontitis. As a result, the pathogenesis of menopause affects the state of all structures of the oral cavity.

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