

## **THE IMPORTANCE OF THE CLINICAL PICTURE AND DEVELOPMENT OF THE CONDITION OF PERIODONT TISSUE DISEASES IN PREGNANT WOMEN**

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### **ABSTRACT**

Pregnant women have the highest risk of dental diseases [3]. According to a number of authors, the prevalence of dental caries during the physiological period of pregnancy is 91.4%, in 90% of cases, diseases of the periodontal disease tissue, mainly damage to healthy teeth with an acute course of the carious process, make up 38% of pregnant women. [5]. Secondary caries, development of the caries process, enamel hyperesthesia in 79% of pregnant women [11]. At the same time, the growth intensity of dental caries in terms of the absolute increase in the index of caries-fillers-removed teeth during pregnancy is 0.83 [2].

**Key words:** gestation period, diseases of the hard tissue of the teeth and periodontal disease, periodontal disease, taste analyzer, chronic generalize periodontitis.

### **INTRODUCTION**

In 50% of pregnant women and women in labor, gingivitis of pregnant women is observed in the normal period of pregnancy at 2-3 months of pregnancy. From the second half of pregnancy, the pathological process becomes more pronounced and often proceeds as general catarrhal or hypertrophic gingivitis and often develops pyogenic granuloma. With the development of pregnancy, periodontal disease develop continuously and only in the postpartum period does

the clinical picture improve [4]. In the long run, gingivitis that occurs during pregnancy becomes chronic [9, 10].

Against the background of a change in reactivity in a pregnant woman and a decrease in the resistance of the body, foci of latent odontogenic infection can cause serious complications as a result of an exacerbation of the inflammatory process [7, 8].

The strongest strain of inflammatory events in the tissues of the periodontal disease occurs in the second trimester of pregnancy, and a sharp increase in the periodontal disease condition in the oral cavity occurs in the third trimester [4, 2], which not only determines the optimal time for dental examinations. it is important to distinguish between the approach to programs for the prevention and treatment of the most important diseases of the oral cavity during pregnancy and in the postpartum period, as well as for this period of pregnancy.

A decisive role in the development of caries and periodontitis in pregnant women is played by hormonal substances produced by the placenta (progesterone, gonadotropin), changes in mineral and protein metabolism, immunological condition, oral microflora [1, 5].

It is not enough to talk about an increased risk of the appearance and development of periodontal diseases, as well as an increase in the intensity of dental caries in pregnant women; tires. This does not negate the importance of already identified factors that affect the appearance and development of dental caries, periodontal disease during pregnancy, but is aimed at competently combining diagnostic important known and newly identified criteria into a system of practical recommendations for identifying risk groups among pregnant women. dental health and their special monitoring.

Peptides of the biological environment, including oral fluid, are signs of local inflammatory intensity and are responsible for the implementation of innate immunity to microbes [6, 12]. In oral fluid, a whole complex of peptides is secreted, among which and are secreted [14]. The introduction of peptides into algorithms and models for sorting the risk of developing dental caries during pregnancy extends the limits of existing recommendations in this direction.

Oral fluid and peripheral blood are used as biological agents in the study of systemic immunity in pregnant women with periodontal diseases [8]. However, despite the easy way to choose after the birth of a child and placenta, which is not associated with invasive manipulations, periodontal disease blood and umbilical cord blood, which are fetal and maternal blood, are not used as biological agents. At the same time, the spectrum of inflammatory mediators, the determination of the mineral composition of periodontal disease and umbilical blood allows to

answer the questions of varying degrees of whether the inflammation of the periodontal tissues came with the "mother-placenta-fetus" system. Is it possible to predict the appearance of caries of milk teeth in the future from the stage of birth? The study of these causal relationships enriches the existing scientific concept of the consequences of dental diseases for the body of the entire pregnant woman and develops new methods of periodontal disease prognosis of diseases.

Thus, in modern conditions, the organization of diagnosis, monitoring, prevention and prognosis of oral diseases of pregnant women and the provision of dental assistance to them remains an unresolved problem that determines the relevance of studies in this direction.

**The purpose of this** study is to optimize the system of dental care for pregnant women using clinical and laboratory indicators.

**Materials and research methods.** Dental examination of pregnant women with periodontal diseases and hard tissues for the study of clinical and immunological indicators in the development of periodontal diseases and hard tissues of the teeth, 25 people in the regional dental Polyclinic - the main group, as well as 15 people who were not during pregnancy. These patients were accepted as a comparison group.

**Results and discussion.** According to an analysis of research by some scientists, the incidence of dental caries in women during pregnancy is 90.8% and increases to 95% with preeclampsia [6]. In 39% of women, previously healthy teeth during pregnancy are damaged by acute caries lesions. According to many scientists, inflammatory and destructive lesions of periodontal tissues during pregnancy are observed in 65-90% of cases, and their prevalence in the prenatal period is 100% [10]. According to foreign authors, the incidence of damage to the periodontal tissue, starting with inflammation of the gums and ending with inflammation of the periodontal tissue, is 15-65%.

Lakoine M.O it has been found that during pregnancy, women have 35-98% gum inflammation, while periodontal inflammations are 7-22% [11]. Wagett K.in the work of, a study with periodontitis in 345 pregnant women found that the depth of the pathological pocket lesion was mainly (38.7%) 4-6 mm [13]. The transition of dental caries to a complex form is due to its increase, re-developing caries occurs in 70% of pregnant women, while the increase in the caries process during pregnancy is 0.85% [5]. A characteristic sign of the development of caries in pregnant patients is the deep spread of the carious process to enamel and dentin, which is associated with damage to the highest percentage of teeth, including inflammation of the dental pulp [8].

80% enamel sensitivity in pregnant patients, hyperesthesia to mechanical, thermal and chemical factors of healthy teeth, the most common wedge-shaped defects, pathological wear of teeth of the vertical type [1].

Of the total number of pregnant women, 95% of pregnant women need dental treatment [7], orthopedics - 57%, emergency surgeries are performed by surgeons in 2.4% of patients [6].

In an analysis of 150 women during pregnancy, it was found that the indicators of increased tension of carious teeth increased by the end of the gestation period compared to the first trimester [7]. In particular, scientists found that during 8-12 weeks of gestation, the KPI and KPI indices show approximately  $10.9 \pm 0.8$  and  $23.5 \pm 0.9$ , with larger values in 34-40 weeks. respectively  $14.1 \pm 0.9$  and  $26.1 \pm 0.7$ . The assessment of the hygienic index among women of the same category showed its poor picture and the appropriateness of the intermediate indicators of the gum index for the inflammatory process of moderate severity.

Zaslhoff M. and Tanida T. according to a combination of low levels of lysozyme with reduced concentrations of immunoglobulins, periodontal disease is associated with hypersensitivity to infectious pathogens. Thus, the amount of antimicrobial proteins in the oral fluid reflects the state of local non-specific protective factors of the oral mucosa.

Antimicrobial peptides are the first line of defense of Innate Immunity in all types of living beings, and the high importance of AMP is confirmed by their high content in circular neutrophils [1].

Studies have shown that amps are involved in an inflammatory response by producing periodontal disease for immune cells, including interleukin-8, and mobilizing immunocompetent T cells to attract neutrophils, as well as acting as enhancers for cell adhesion and later periodontal disease cell migration. [12, 13, 14].

Recently, another structurally distinct subfamilies of periodontal been identified in leukocytes of rhesus monkeys. In humans, periodontal is blocked by mutations, but is conserved in primates [12].

The main interleukin (IL) that supports the inflammatory process in periodontal disease and is responsible for its generalization is interleukin-1, which exists in Form 2 (IL-1A and IL-1R). The action of IL-1 begins after the combination of cytokine with specific receptors in cells. After interacting with endothelial cell receptors, IL-1 helps to produce adhesive molecules that lead to chemotaxis and adhesion of granulocytes of leukocytes and monocytes. Acting on fibroblasts, IL-1 stimulates the production of collagenase, which leads to the

breakdown of collagen, a decrease in its synthesis and stimulates periodontal disease.

**Conclusions.** The results of the study of the dynamics of the prevalence of dental caries among pregnant women are characterized by an increase of 14%, a steady increase in cases of recurrent dental caries, the conjugation of the incidence of caries with the age of patients ( $F=25.7$ ,  $p=0.03$ ), pregnancy parity ( $\lambda^2=21.2$ ,  $p<0.001$ ). In the structure of inflammatory periodontal diseases in pregnant women, there is a steady trend towards an increase in the prevalence of mild and moderate periodontitis by 7.5% with a steady prevalence of hypertrophic gingivitis. The risk of developing inflammatory periodontal diseases in pregnant women increases with increasing age of patients ( $F=25.5$ ,  $p=0.01$ ) and pregnancy parity ( $\lambda^2 =39.7$ ,  $p<0.001$ ). 3. The principle of consistent two-fold assessment of the CPI index, the hygienic index and the degree of caries activity in the dynamics of pregnancy makes it possible to assess the dental status of pregnant women with the allocation of five categories: healthy, at-risk, compensated, and decompensated status, to determine the type and scope of therapeutic and preventive measures in each category of women. The use of the developed system of dental care in the dispensary group is accompanied in the 3rd trimester, compared with the 1st trimester, by a decrease in the number of pregnant women with decompensated dental status from 24.7% to 13.8% ( $p=0.001$ ), compared with the control group, a decrease in the number of people with moderate CGP by 10% ( $p<0.05$ ), a reduction in the number of recurrent forms of dental diseases (36.2% vs. 43%), a decrease in the intensity and activity of dental caries.

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