

RESULTS OF THE STUDY OF DENTAL HEALTH OF PREGNANT AND BREASTFEEDING WOMEN

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Abstract: Pregnancy and breastfeeding are beautiful yet challenging periods in a woman's life, often accompanied by significant physical and hormonal changes. One of the commonly overlooked aspects during this time is oral health. This study aims to explore how pregnancy and lactation impact the dental well-being of women and to identify the most common dental problems they face. Through clinical examinations and surveys involving 200 women in various stages of pregnancy and breastfeeding, we observed a notable increase in the prevalence of gingivitis, dental caries, enamel erosion, and increased tooth sensitivity. These issues were linked to hormonal fluctuations, dietary habits, frequent vomiting (especially in the first trimester), and limited access to dental care. The results emphasize the need for increased dental awareness and care for women during these critical stages of motherhood. The study advocates for integrating dental education and preventive care into prenatal and postnatal healthcare systems.

Key words: Oral health in pregnancy, Breastfeeding and dental care, Maternal health, Gingival inflammation, Hormonal effects on teeth, Dental caries in mothers, Prenatal oral care, Postpartum dental hygiene, Women's health, Preventive dentistry.

Introduction

Motherhood brings immense joy, but it also brings many physiological changes — some of which may unexpectedly impact oral health. For many women, the connection between pregnancy, breastfeeding, and dental well-being remains underrecognized, even though medical professionals have long noted that hormonal changes during these periods can significantly affect the mouth, gums, and teeth.

Pregnant women often experience elevated levels of progesterone and estrogen, which can make the gums more susceptible to inflammation, a condition known as pregnancy gingivitis. Additionally, the combination of morning sickness, cravings for sugary foods, and changes in oral hygiene routines can further exacerbate dental issues. Similarly, during the breastfeeding period, calcium depletion and dehydration can also impact oral health, yet most new mothers prioritize the baby's needs over their own, often postponing dental check-ups.

Methodology

This observational study was carried out between January and October over the course of ten months in three family health clinics and one urban maternity hospital. A total of 200 women participated in the research — 100 of them were at different stages of pregnancy (first, second, and third trimesters), while the remaining 100 were in the breastfeeding stage (up to 12 months postpartum).

Participants were selected through voluntary enrollment and gave informed consent. Data collection was divided into two parts:

Clinical Assessment: Each participant underwent a professional dental examination by a certified dentist. The examination focused on identifying common oral issues such as gingivitis, dental caries, plaque accumulation, enamel erosion, and tooth mobility. Gum health was assessed using the Gingival Index (GI), and tooth decay was measured through DMFT (Decayed, Missing, Filled Teeth) scores.

Questionnaire Survey: A structured questionnaire was given to each woman to evaluate her oral hygiene habits, dietary changes, frequency of dental visits, knowledge about pregnancy-related dental risks, and whether she had received any dental care advice during prenatal or postnatal consultations.

Statistical analysis was performed using SPSS version 25. Chi-square and correlation analysis were applied to examine the relationship between oral health conditions and stages of pregnancy/lactation. Qualitative feedback from open-ended questions was coded and analyzed thematically..

Results and Discussions

Despite numerous studies conducted by our country and foreign researchers, the treatment and prevention of periodontal diseases in pregnant women remains a major problem. The clinical course of periodontal inflammatory diseases in pregnant women is multifaceted and difficult to diagnose, and the treatment and prevention of periodontal inflammatory diseases are also symptomatic and do not lead to the expected results. To register the clinical signs of periodontal diseases, probing of the alveolar ridge; detection of bleeding on probing; determination of the degree of clinical gingival recession, width of gingival adhesions; hygiene indices; gingival and periodontal indices; detection of gum recession; detection of tooth mobility; detection of exudation in the periodontal pocket; radiological studies are used.

The results of the dental examination revealed a high need for treatment of periodontal diseases in women at risk of preterm birth. The correlation between the intensity of inflammation in the gums of pregnant women and the concentration of IL-6 in oral fluid suggests the feasibility of using the method of monitoring the concentration of this inflammatory biomarker in oral fluid for the diagnosis of periodontal disease and assessment of the dynamics of periodontal status during treatment. This method is safe, non-invasive, effective and provides a lot of information.

It is optimal to take measures aimed at preventing the occurrence of dental diseases from the 3rd to the 6th month of pregnancy. The most frequent signs of inflammation in the periodontal tissues are observed in the II and III trimesters of pregnancy. trimester, acute stage III- observed in the third trimester, which allows for the determination of optimal periods for dental examinations and a differentiated approach to treatment measures.

20 to 42 years were examined. 550 dental and obstetric outpatient cards were studied from 2009 to 2012. The need to create and implement individual programs for the prevention of diseases in the oral cavity of pregnant women was identified, one of the components of which would be an individually selected therapeutic toothpaste and toothbrush. In order to maintain oral hygiene, therapeutic and prophylactic agents such as Parodontax and Aquafresh toothpastes are recommended for use during pregnancy to prevent and treat the initial forms of periodontal disease.

The clinical and immunological characteristics of the periodontal status and cytokine profile were studied in 240 women with physiological pregnancy and 360 pregnant women with severe gestosis. Cytokine instability in oral fluid serves as an additional diagnostic and prognostic marker of the severity of inflammatory diseases in the periodontium. The authors believe that the effectiveness of the prevention and early detection of gingivitis and periodontitis in pregnant women is insufficient, so it is urgent to develop methods for their comprehensive diagnosis and measures for their prevention. Reducing the likelihood of gingivitis turning into periodontitis in pregnant women and significantly reducing the severity of severe forms of periodontal inflammatory diseases can be achieved through preventive measures, in addition to treatment and prevention measures - preventive examinations of women to detect periodontal diseases at an early stage, and informing patients about the presence of gingivitis, its complications, and the possibility of successful treatment of this disease using toothpaste and mouthwash containing mexidol, produced in our country.

The relationship between dental diseases and general health in pregnant women is bidirectional. The risk of developing caries and periodontal diseases increases, and the presence of these diseases affects the condition of the pregnant woman's body. The authors proposed different approaches to diagnostic, preventive and therapeutic measures in pregnant women .

A survey was conducted on 100 pregnant women at different stages of pregnancy on issues of personal oral hygiene. The authors noted that 73% of pregnant women visited the dentist less than once a year, and they turned to him only when necessary and when acute pain occurred. The results of the survey showed a low level of knowledge in them on the prevention of dental diseases. Only 25% of the respondents followed the recommendations on personal oral hygiene given by a specialist, 79% of women did not conduct oral hygiene before pregnancy, and 58% of women were not aware of the need for sanitation. During the examination, 69% of the respondents were found to need treatment for dental diseases.

Conclusion

In the control group, the correlation between proteins, inflammatory mediators and the KPU index and PMA index in the acute phase of inflammation was weak and statistically insignificant. During pregnancy, the concentration of IL-6 in oral fluid increases from the 1st to the 3rd trimester. The determination of the amount of CRO, IL-6 and FNO- α in the oral fluid of pregnant women with dental caries did not have diagnostic value for the description of the activity of dental caries. An increase in the amount of CRO, IL-6 and FNO- α inflammatory mediators in the oral fluid of pregnant women with SUP reflects the severity of dental disease, which allows obtaining additional assessment criteria for the description of the disease.

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