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## TACTICS OF DENTAL CARE FOR PREGNANT WOMEN DURING THE FIRST TRIMESTER OF PREGNANCY

Shukurova U.A., Zhuraeva N.I., Gafforova S.S., Rakhmatullaeva O.L.

Tashkent State Dental Institute, Uzbekistan Andijan State Medical Institute, Uzbekistan

**Abstract:** Long-term scientific research proves that during pregnancy the intensity and prevalence of dental caries significantly increases. The purpose of this study is to evaluate and develop tactics of dental care for pregnant women during the first trimester with mandatory use of correction of the emotional state of the woman. The effectiveness of the developed method of anxiety correction is shown by a decrease in the level of situational anxiety by the second visit for all types of temperament. Measures have been developed to provide dental care to pregnant women in the first trimester, which included: collection of anamnesis, assessment of the functional state, psychocorrection of distress, determination of dental status and professional oral hygiene.

**Key words:** pregnancy, first-time pregnant women, repeat pregnant women, oral hygiene index, simplified Green-Vermilion index of oral hygiene (OHI-S), modified index of risk of chronic oral sepsis (RCOS-M), Spielberg-Khanin test, Eysenck questionnaire.

Relevance of the study. According to a number of authors, even during a physiological pregnancy, the prevalence of dental caries is 91.4%, with an increase in new carious cavities in previously intact teeth often observed [2,3,8,10]. Pregnant women are at risk of developing and progressing the main dental diseases - caries and periodontal diseases [1,4,7,9]. Long-term scientific studies prove that during pregnancy, the intensity and prevalence of dental caries significantly increases [1,2,8]. During a physiological pregnancy, the prevalence of caries is up to 99%, and in pregnancy complicated by gestosis - up to 100% (Yamshchikova E.E., 2010). The need of pregnant women for therapeutic care for caries and its complications is 94.7% (Bizyaev A.F., 2002; Yakubova I.I., 2007). During pregnancy, the incidence of inflammatory periodontal diseases - gingivitis and periodontitis - also increases significantly [3,5,9].

All of the above dictates the need to determine the dental and psycho-emotional status of pregnant women in different trimesters and develop a dentist's tactics.

**Objective of the study.** To evaluate and develop tactics of dental care for pregnant women during the first trimester with mandatory use of correction of the emotional state of the woman.

**Materials and methods of the study.** 35 pregnant women aged 18 to 36 years were examined in the first trimester of pregnancy, with the first and repeated pregnancy. The study did not include pregnant women with severe concomitant or obstetric pathology in the decompensation stage, patients after myocardial infarction and stroke, patients with severe pathology of the central nervous system.

In the first trimester, 25 women sought planned care, they underwent professional oral hygiene and a comprehensive treatment plan was drawn up for the entire period of pregnancy; 10 women sought emergency care.

To establish the dental status, the simplified Green-Vermilion Oral Hygiene Index (OHI-S) and the modified Chronic Oral Sepsis Risk Index (ROS-M) were determined. To correct distress, the developed method of behavioral psychotherapy, the Spielberg-Khanin test, was used. The test

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consists of 20 questions, which indicates the degree of situational (reactive) anxiety. The temperament of pregnant women was determined using the Eysenck questionnaire.

**Results and discussion.** Dental status of pregnant women during the first trimester. During the initial examination of the oral cavity of a pregnant woman in the first trimester, the following indices were determined: simplified Green-Vermilion, RCOS-M index. In the first trimester, the average value of the OHI-S index was  $3.5\pm0.56$ , and the RCOS-M index was  $20\pm0.5$ .

As a result of using a rational method of behavioral psychotherapy in patients with the "melancholic" temperament type, the level of situational anxiety decreased by the second visit from  $47.05\pm1.6$  to  $27.05\pm1.4$  (by 20%) from the initial level; with the "sanguine" temperament type, by the second visit, the level of situational anxiety decreases from  $37.05\pm1.5$  to  $29.77\pm1.2$  (by 15%); with the "choleric" temperament type, by the second visit, a reliable decrease in the level of situational anxiety is noted from  $43.5\pm1.8$  to  $28.05\pm0.7$  (by 15%); with the "phlegmatic" temperament type, the level of situational anxiety decreases from  $46.6\pm2.4$  to  $29.3\pm1.5$  (by 17%) by the second visit from the initial one. In the comparison group, a decrease in the level of situational anxiety by 7.5% is also noted, however, here this occurs due to achieving psychological comfort from communicating with the doctor, without the use of behavioral psychotherapy.

The effectiveness of the developed method of anxiety correction is demonstrated by a decrease in the level of situational anxiety by the second visit for all types of temperament (Fig. 1). As can be seen in Figure 1, in the study and control groups, when using rational psychotherapy during a dental appointment, the dynamics of the decrease in the level of situational anxiety is presented. The indicator of situational anxiety significantly decreases by the second visit in the study group by 16.8%, while in the comparison group there is no reliable decrease in this indicator. The time spent on psychocorrection of anxiety in the first trimester of pregnancy is 25-30 minutes.

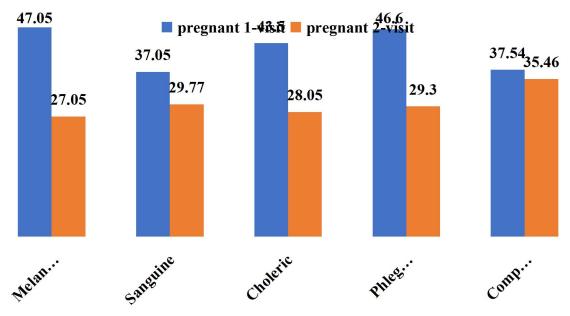


Fig. 1. Dynamics of the level of situational anxiety in pregnant women in the first trimester of pregnancy with the use of psychological correction of distress.

Based on the obtained results, in the first trimester of pregnancy, patients who came for a routine examination and needed comprehensive oral hygiene underwent professional hygiene, and were given recommendations for individual oral hygiene at home throughout the pregnancy. Seven

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days after professional oral hygiene, a repeated determination of hygienic indices was carried out to monitor the effectiveness of the intervention and the patient's compliance with home care recommendations. Thus, the dynamics of oral hygiene indicators in pregnant women in the first trimester of pregnancy before professional hygiene was OHI-S -  $3.5\pm0.56$ , the RCOS-M index  $20\pm0.5$  points. Reliable differences were established after 7 days, which amounted to the OHI-S index -  $2.3\pm1.68$ , the RHOS-M index received a value of  $14\pm0.38$  points, respectively (Fig. 2).

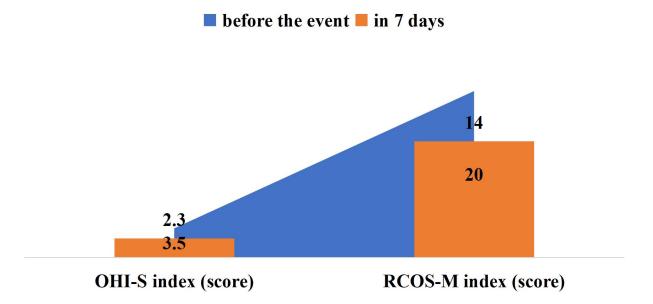


Fig. 2. Dynamics of oral hygiene indicators in pregnant women in the first trimester of pregnancy before and 7 days after professional hygiene.

In the first trimester of pregnancy, patients who came for a routine examination and needed comprehensive oral sanitation underwent professional hygiene in 25 cases, and were given recommendations for individual oral hygiene at home throughout the pregnancy. Seven days after professional oral hygiene, repeated determination of hygiene indices was carried out to monitor the effectiveness of the intervention and the patient's compliance with recommendations for home care.

In the first trimester, 10 women sought urgent care, including 6 patients with a diagnosis of exacerbation of chronic pulpitis and 4 patients with a diagnosis of acute apical periodontitis. Psychological diagnostics of the degree of anxiety in the case of emergency dental care were not carried out. Before and during the provision of dental care, patients were communicated with only in a polite manner. Studies were conducted on the effectiveness and safety of the local anesthesia used using an analog-visual scale (AVS), taking into account not only the patient's opinion, but also the doctor's opinion (Anisimova E. N., 2017).

Conclusions. Thus, measures were developed to provide dental care to pregnant women in the first trimester, which included: collection of anamneses, assessment of the functional state, psychocorrection of distress, determination of dental status and professional oral hygiene. After professional oral hygiene, all pregnant women in the first trimester were given a comprehensive plan for dental rehabilitation for the entire period of pregnancy.

#### LIST OF USED LITERATURE

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