

Substantiation of the Program for Prevention of Dental Diseases in Able-Bodied Women with the Diagnosis or Regular Miscarriage

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Abstract--- *Diagnosis of extragenital diseases is of great importance in studying the mechanism of development of the pathology of oral tissue during pregnancy, since dental health of the unborn child also depends on the level of health of the pregnant woman. Considering the above, the aim of the work was to substantiate the development of a program for the prevention of dental diseases in able-bodied women with a diagnosis of regular miscarriage. The object of the study was outpatient records and medical history (a total of 2017 records of pregnant women). To study the predictors of dental morbidity, an experimental group of pregnant women was formed (31 persons). Factors affecting the intensity of dental diseases in the examined group of pregnant women, namely: the age group ($p = 0.032$), presence of children ($p = 0.004$) and the presence of periodontal pockets ($p = 0.006$) were revealed. As a result of the work, risk factors for the development of dental pathology were established and a program for the prevention of dental diseases during pregnancy in women with regular miscarriage was substantiated, which supposed continuity in the work of dental medical organizations serving pregnant women, antenatal clinics and specialists.*

Keywords--- *Pregnancy, Dental Diseases, Prevention, Prevention Program.*

I. INTRODUCTION

Pregnancy is a critical period for a woman's dental health and is characterized by a change in the level and structure of oral diseases. At present, dental diseases during pregnancy present a special chain in cariesology and periodontology due to the characteristics of the clinic and the influence of the general body state. During pregnancy pathogenicity of the oral flora increases due to the increased proliferation of opportunistic microorganisms. The intensity and prevalence of dental caries and periodontal diseases during pregnancy increases, the fact noted by many researchers for a long period of time [1, 2, 3].

There are still no specific schemes for the etiopathogenetic treatment and prevention of dental caries and periodontal diseases during pregnancy. The dental status of pregnant women is characterized by a low level of dental knowledge, lack of motivation for the prevention of dental diseases and oral hygiene. Disease prevention, as well as pathogenetic therapy, involves first of all knowledge of their etiology and pathogenesis.

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A number of scientists are of the opinion that the dental status is associated with hormonal changes in the body of pregnant women [7, 8, 9]. By the end of the first trimester, a complex exchange of hormones is established between the organisms of the mother and the fetus. The placenta formed by this time begins to produce a large number of hormones of protein and steroid nature, 10-100 times higher than the daily production of hormones by classical endocrine glands [9]. Such a high rise in the level of hormones is also reflected in the oral cavity, which can be explained by the presence of highly specific estrogen receptors in bone cell culture [10], marginal periodontal tissues, in small vessels [11], or by the influence of sex hormones on the gum state through the immune system, which undergoes changes throughout the entire period of pregnancy. M. Sooriyamoorthy [12] describes the mechanism of the influence of hormonal changes on the state of the gums: immune suppression, increased exudation, stimulation of bone resorption and stimulation of the synthetic activity of fibroblasts, and the influence on microflora composition. A.O. Ojanotko-Harri, M.R. Nuggi et al. [13], while studying the metabolism of progesterone, suggested that it prevents the development of an immediate type of reaction (acute inflammation), but allows increase in chronic inflammation in the gum tissue. A. Tsami-Pandi has a somewhat different opinion [14], regarding the influence of sex hormones as modeling, making the gums more sensitive to local irritating factors.

Local immunity plays a great autonomic role in protecting the body from the penetration of antigens through the mucous membranes, the function of which is performed by a complex of non-specific biologically active substances (lactoferrin, lysozyme, opsonins, interferon, mucins, secretion glycoproteins, etc.), cellular and secretory immunity (T cells, antibodies) [14]. Many scientists have studied the functional relationships of oral resistance factors that ensure the effectiveness of barrier function, as well as the dependence of the dental health level on local oral immunity [19, 20]. High of dental caries intensity on the background of the increased sIgA content and a marked deficiency of IgG and IgM in saliva, which typical for acute caries, was noted by A.I. Marchenko, G.D. Ovrutsky et al. [20]. At the same time, there are data indicating high intensity of caries accompanied by a decrease in sIgA. The hygienic state of the oral cavity at the time of the examination is of importance. With rational hygienic dental care, which leads to a significant decrease in the oral hygiene index, the level of sIgA in saliva significantly increases [18]. Besides, the intensity of the carious process is influenced by the state of antimicrobial activity of the whole blood [18].

Health status of a child is largely determined by the state of his mother health, especially if the pregnant woman has some kind of pathology. Identification of deviations in the pregnant woman health and early diagnosis will help to prevent negative impact of the mother's diseases on the child. Since the health of the population is formed in childhood, the better the health indicators of the child population, the more favorable will be the health of adults. Thus, it is necessary to have reliable information on the health women and children in dynamics, on the prognosis of the main health indicators, on the degree and nature of the influence of different factors on the health of this population [4,5].

Of special significance in the realization of preventive measures is the analysis of the structure of dental morbidity, since pregnancy is accompanied by an increased requirement in calcium. A growing child “takes” calcium from his mother for his own bones. In case of insufficient calcium intake, due to chronic diseases of the

gastrointestinal tract or its insufficient content in food, calcium is mobilized from mother's bones. The bones of the upper and lower jaw, in particular their processes surrounding teeth, are the first to suffer [6,7,8].

Severe and prolonged chronic diseases of the mother adversely affect antenatal and postnatal development, are serious risk factors in the development of pathology of milk teeth in children under 3 years of age, since under the influence of these factors the formation of all tissues of the future tooth is disturbed, as well as calcification of enamel and dentin [9,10,11,12].

Using modern equipment, certain health problems were found in 75% of pregnant women. First of all, these are kidney diseases, which frequency increases from 12% to 51% during pregnancy, cardiovascular - from 19% to 63%, and iron deficiency anemia - from 17% to 65%. In the group of young women under 25 years of age, concomitant somatic diseases are exacerbated in 60-80% of pregnant women.

Due to the studies performed, the deficiency of group B vitamins in expectant mothers ranges from 20% to 100%, ascorbic acid - 13-50%, carotenoids (with a relatively good supply of vitamin B) - 25-94%. In 70-80% of the examined women deficiency of three or more vitamins was found, hypovitaminosis [14,15,16,17].

Prevention of dental caries and periodontal diseases in pregnant women is of great importance, which, according to some authors, has two goals: to improve stomatologic status of women and perform antenatal prophylaxis of dental caries in children.

Mater's health during pregnancy affects the development of the child's teeth, especially during the 6-7th week, when the process of teeth formation begins. Studies of dental germs have shown that in case of the pathological course of pregnancy, the mineralization of fetal teeth enamel slows down, and often stops at the stage of initial calcification. In the postnatal period, the mineralization of such teeth improves, but does not reach the normal level of calcification of temporary teeth.

Already in the early stages of pregnancy, state of hard tissues of teeth and periodontium worsens on the background of unsatisfactory hygienic state of the oral cavity and changes in the composition of the oral fluid. This makes it necessary to carry out preventive measures throughout the entire period of pregnancy. Women are recommended to do a set of general preventive measures, including a correct mode of work and rest, nutrition, vitamin therapy.

An important component is the prevention of dental caries and periodontal diseases in pregnant women, which, according to some authors, has two goals: to improve the stomatologic status of women and implement antenatal prophylaxis of dental caries in children.

To achieve the maximum effect in the prevention of dental diseases, women need to be examined during the entire period of pregnancy and coordinate work of a gynecologist and dentist, to whom a woman should be referred during the first visit to the antenatal clinic. In the dental office it is necessary to organize:

- Training in rational oral hygiene with the controlled teeth brushing, assistance in choosing of basic and additional hygiene products;
- Sanitation of the oral cavity;

- Professional hygiene;
- Remineralizing therapy to increase the resistance of tooth enamel.

Of particular importance is the organization of educational work on the prevention of dental diseases in children and making motivation for caring for teeth immediately after eruption [1,2,5,17,19,20].

The main dental diseases appear in childhood, progress throughout life and cause complications leading to partial or complete loss of teeth, impaired chewing function, deterioration in the quality of life, large material costs for the population and for the state. In this connection, it is necessary to develop preventive measures at the individual and social levels, including all the examined population groups, which are based on four main methods: increasing the structural resistance of hard dental tissues to caries by systemic and / or local fluoride administration; reduction of microbial plaque on the teeth by regular and thorough oral hygiene; decrease in the frequency (not more than 5-6 times a day) of food consumption; motivation and training of the population [18,19,20].

Purpose: to develop a program for the prevention of dental diseases among women of working age with a diagnosis of regular miscarriage.

II. MATERIALS AND METHODS

The study was performed following a complex program using the following methods: study and generalization of experience, monographic description, analytical, statistical, method of expert assessments, economic, comparative analysis.

Object of the study: outpatient records and medical history. A total of 2017 cards of pregnant women were analyzed. To study prognostic factors predictors of dental morbidity in women with regular miscarriage, an experimental group of pregnant women (31 persons) observed in the antenatal clinic at the Maternity Hospital named after M.P. Konchalovsky, who underwent a dental examination was formed. The development of an algorithm or model for the provision of specialized dental care to such patients will help to maintain oral health and prevent the development of somatic pathology, which can negatively influence woman's reproductive function.

Statistical processing of the obtained data was carried out by the method of variation statistics using the Student and Fisher criteria.

For the variational series, mean error (m) and the reliability of the arithmetic mean (M) were calculated.

III. RESULTS

Pregnancy is known to be accompanied by an increased need for calcium. A growing child "takes" calcium from his mother for his own bones. When calcium is insufficient due to chronic diseases of the gastrointestinal tract or its deficiency in food, it is mobilized from the bones of the mother. The bones of the upper and lower jaw, in particular their processes surrounding the teeth, are the first to suffer. In physiological course of pregnancy, the prevalence of dental caries is 91.4%, damage to the previously intact teeth (with predominance of the acute course of the carious process) in 38% of pregnant patients. Significantly more severe are the lesions of the oral cavity during gestosis.

In late gestosis, the prevalence of caries increases to 94% and the intensity of tooth damage to 7.2-10.9. The clinical feature of the carious process, especially in late gestosis, is an acute course, which leads in a short time to the development of complicated caries.

In the present study, in studying cervical caries in pregnant women, increased prevalence of chalk spots from 23% at 7-9 weeks of pregnancy to 63% by 9 months was found, the intensity increased by 4-5 teeth. Prevalence of initial caries in the form of focal demineralization from 68.9 to 76.8% was also observed. The mean number of the affected teeth ranged from 1.74 ± 1.14 to 5.17 ± 1.08 per one pregnant woman.

Data on periodontal state during pregnancy are of interest. Already in the second or third months of physiological pregnancy the so-called pregnant gingivitis is observed (from 45% to 63%) - gingivitis gravidarum. In gestosis during the second half of pregnancy, periodontal diseases reach 100% of cases; severe gingivitis is much more common.

During pregnancy, some types of bacteria (*Prevotella intermedia*, *Prevotella melaninogenica*, *Bacteroides* subspecies) are more common, which, especially *Prevotella intermedia*, tend to replace the important food product naphthoquinone by hormones. And during pregnancy hormones mainly prevail in the gingival fluid. The first clinical signs of pregnant gingivitis most often occur in the third (16.9%) - fourth (14.2%) months of pregnancy. During pregnancy, gingivitis constantly progresses and proceeds subacutely as a spread catarrhal (54.7%) or hypertrophic (45.3%) inflammation and is characterized by a bright red color of the inflamed gum, pronounced bleeding and swelling of the cervical mucosa. In the second half of pregnancy, a noticeable pH shift to the acid side is observed and pH value is 0.64 units more acidic than non-pregnant women. The lowest values of the hydrogen index were observed in women in the II and III trimesters of pregnancy, and in women with toxicosis in the first half of pregnancy. The concentration of hydrogen ions in the oral cavity affects the activity of saliva enzymes, the processes of mineralization and remineralization of enamel, microcirculation, the activity of microflora, specific and non-specific resistance of tissues of the oral cavity. Decrease in remineralizing properties of saliva occurs. The metabolic cleavage of carbohydrate-containing products by the microflora, the so-called metabolic explosion, leads to the greatest destabilization of pH in the oral cavity. The peak of this explosion occurs at the places of microorganisms accumulation - dental and lingual plaque. Along with food and microflora, pH in the oral cavity is affected by the dilution of saliva, ion exchange in the systems "oral fluid - enamel" and "oral fluid - plaque" and the functional activity of salivary glands. Acidification of saliva leads to the increased intensity of caries (CPU), deterioration of the hygienic state and aggravates the course of inflammatory processes in periodontal tissues. This allows to regard the ways and possibilities of pH of the oral fluid correction, as one of the methods of an individual prevention program.

The study showed, that the prevalence of dental caries among the examined women was 100% with mean intensity of 12.26 ± 0.34 . The requirement in oral sanitation was 94.8%. This suggests that most women had foci of chronic oral sepsis, which can complicate the course of pregnancy and childbirth. Besides, the presence of untreated caries and a high level of NCE (N – number of permanent teeth with caries and its complications; C – number of permanent teeth with fillings; E - number of permanent teeth removed) in pregnant women shows high level of

colonization in the oral cavity by *Streptococcus mutans*. The indicators of the intensity of dental caries in pregnant women were close to the indicators of the intensity in the population group of 35-44 years old, although the mean age of the examined was 28 years.

Table 1: Structure of NCE Index in Pregnant Women

	Pregnant women (n=31)
CPI	12.3± 0.3
N	5.5 ± 0.3
C	5.3 ± 0.3
E	1.5 ± 0.2

Besides, factors influencing the intensity of dental diseases in the examined group of pregnant women were determined. It was found that statistically significant factors are age group ($p = 0.032$), children ($p = 0.004$) and periodontal pockets ($p = 0.006$). Thus, a woman's dental health directly depends on her age, number of pregnancies and hygiene habits.

Maternal health during pregnancy affects the development of the baby's teeth, especially during the 6-7th week, when the process of teeth primordium begins. Studies of tooth primordia have shown that in case of pathological pregnancy, mineralization of the enamel of the fetal teeth slows down, and often stops at the initial stage of calcification. In the postnatal period, mineralization of such teeth, improves, but does not reach the normal level of calcification of temporary teeth, which reduces of temporary teeth to caries.

Features of the intrauterine period of the dentition development are:

- 4 - 5 weeks - formation of the jaw bones of the fetus and soft tissues of the face occurs. Exposure to aggressive factors leads to the formation of crevices.
- Week 6 - 7 - primordium buds of temporary teeth, there may be no teeth primordium or extra number of teeth.
- 17 - 18 weeks – primordium buds of permanent teeth begins. Adentia or extra number of teeth may develop.
- Week 20 - mineralization of the primordium of milk incisors begins. Enamel may be slightly mineralized, future teeth are caries susceptible. Non-carious lesions, such as enamel hypoplasia, may develop.
- Week 28 - buds of milk canines and molars begin to mineralize. Active mineralization of the fetus skeleton takes place.
- 32 - 34 weeks - mineralization of the buds of the first permanent molars begins.
- 38 weeks - mineralization of the first permanent incisors begins.
- There is a group of factors which can disturb full formation of the dentition. These include:
 - Presence of extragenital pathology in the mother;
 - Pregnancy complications (toxicosis of the first and second half); stressful situations during pregnancy;
 - Diseases of newborns and infants;
 - Early artificial feeding

It is known that the baby in the mother's body develops in sterile conditions and only after birth with its first breath does the microflora in the body of the newborn settle. The child's immune system is absolutely immature and forms only by the age of 6-7. The child receives the first and main immune defense in the first days of life with

mother's milk. Therefore, the presence in the mother's oral cavity of active caries forms and decayed teeth affects the mother's immunity, weakening the protective properties of breast milk.

Another important point is the fact that the mother is in very close constant contact with the baby transferring her bacteria in large quantities through kisses, a dummy, etc. The protection of the baby's oral cavity is not so much developed to cope with this. As a result, by the age of 2.5-3 years, a lot of carious cavities are observed in the milk bite due to the aggressive action of microflora on the immature enamel of the baby's milk teeth.

The effect of caries on the fetus: a study performed by American scientists revealed a clear relationship between the amount of *Actinomycesnaeslundii* (bacterium that has a pronounced cariogenic effect) and premature birth and birth of a fetus with low body weight. It is believed that these bacteria also stimulate the production of anti-inflammatory cytokines (substances that cause uterine contractions and cervical canal enlargement) in the body of a pregnant woman. The more the cervical canal expands, the greater the destruction of the membranes of the fetus and possibility of premature birth.

The effect of caries complications on the fetus are: pulpitis and periodontitis are the simplest complications of caries. They arise due to the fact that tooth decay reaches the neurovascular bundle inside the tooth, and as a result the tooth becomes inflamed and the tooth begins to hurt. Moreover, the effect on the fetus arises on two sides:

First, inflammation of the tooth pulp (pulpitis), and even more so, the spread of inflammation outside the tooth, causes the absorption of toxins (and even pathogenic bacteria) into the blood, which are carried by blood throughout the body. The effects of this process are very unfavorable both for women and fetal development;

Second, the psycho-emotional state of a woman is of great importance for fetus state. Toothache is a psycho-traumatic factor. Pain causes changes in many systems and organs not only in pregnant women. Thus, for example, pain results in increased release of certain hormones and a change in hormonal status. Certainly, all this also adversely affects the fetus.

IV. DISCUSSION

Diagnosis of extragenital diseases is of great importance in studying the mechanism of oral tissue pathology of during pregnancy. Severe and prolonged chronic diseases of the mother adversely affect antenatal and postnatal development. They are serious risk factors in the occurrence of pathology of milk teeth in children under 3 years of age, since under the influence of these factors the formation of all tissues of the future tooth is disturbed and calcification of enamel and dentin occurs. This suggests the need for close cooperation between interns and dentists at the body level.

Dental health of the unborn child depends on health of the pregnant woman. Modern equipment reveals certain health problems in 75% of pregnant women. First of all, these are kidney diseases, the frequency of which during pregnancy increases from 12% to 51%, cardiovascular - from 19% to 63%, and iron deficiency anemia - from 17% to 65%. In the group of young women under 25 years of age, concomitant somatic diseases are exacerbated in 60-80% of pregnant women. According to the studies, B vitamins deficiency in expectant mothers is from 20% to 100%, ascorbic acid - 13-50%, carotenoids (with a relatively good supply of vitamin D) - 25-94%. In 70-80% of the examined women there was a deficiency of three or more vitamins, hypovitaminosis. Malnutrition of a pregnant woman can lead to low caries resistance of tooth tissues and dentofacial anomalies of the fetus. Quantitative and

qualitative composition of the food entering the body determines the processes of mineralization and demineralization, and forms the resistance or tendency to caries.

Viral infections are of special interest among all concomitant pathologies in pregnant women. Among viral infections Laine M.A. [Laine M.A. Effect of pregnancy on periodontal and dental health. *Acta Odontol.Scand* 2002; 60 (5): 257 -264] gives special attention to rubella. In the so-called prenatal rubella syndrome, most children have underdevelopment of enamel, high occurrence of caries, delayed teething, pointed incisors. The results of our study showed that the prevalence of decay of temporary teeth in children whose mothers had gestosis of the first and second half of pregnancy is 76.5% and 74.3% with a lesion intensity of 5.5 and 5.2. At the same time, in children who were born during the physiological course of pregnancy, these figures are 58.81% and 3.8. The prevalence of decay of permanent teeth in children whose mothers had early gestosis is 75.5% with a caries intensity of 3.9, late gestosis - 88.1% and 4.4, respectively.

Besides, in children born from mothers with complicated pregnancy, in particular in women with a regular history of miscarriage, pairing and sequence of teething, as well as late teething are more common.

Search for the ways and methods allowing at the minimum cost for medical care to receive the greatest effect in achieving optimal health indicators, shows that the formation and maintenance of a healthy lifestyle is the most appropriate and least costly to maintain a high level of public health. Thus, active introduction of recreational activities aimed at raising optimal medical behavior and the formation of a healthy lifestyle in women with the usual miscarriage is one of the main points of state policy to maintain and promote health.

Prevention of dental caries and periodontal diseases in pregnant women has a twofold goal: to improve the dental status of women and to provide antenatal prevention of dental caries in children. Activities for the prevention of dental diseases should begin from the moment a woman first appears in an antenatal clinic and should be organized taking into account the severity of dental diseases and the course of pregnancy. Dental examination of women is recommended at 6-8, 16-18, 26-28 and 36-38 weeks of pregnancy; treatment and extraction of damaged teeth - before pregnancy, if this did not happen, then within 3-6 months period. According to Tsami-Pandi A. (1989), [Tsami-Pandi A. Old and new aspects of gingivitis in pregnancy / A. Tsami-Pandi // *Odontostomatol Proodos*. - 1989 Jun. - Vol. 43, N3. - P.3 99-403] during the examination, pregnant women visit a dentist, depending on the timing: up to 20 weeks. - 1 time a month; from 20 to 32 weeks - 2 times a month; after 32 weeks pregnancy - 3-4 times a month.

When carrying out treatment and preventive measures, the activity of dental caries in a pregnant woman, the cariogenic situation in the oral cavity, general and local risk factors for the development of dental diseases and nutrition should be taken into account. Pregnant women are prescribed prophylactic agents with systemic (endogenous) and local (exogenous) effects. All purposes of systemic action should be coordinated with the obstetrician-gynecologist and therapist.

Preventive measures are carried out at the individual and community levels. The individual level of preventive measures includes motivational interviewing in order to identify risk factors for major dental diseases; motivation for oral hygiene by plaque staining; training in effective oral hygiene with the selection of hygiene products, including adequate fluoride concentrations; planning patient management and monitoring the effectivity of patient

adherence to prevention and treatment effectivity during each visit to dental personnel. Factors affecting the dental status of pregnant women.

Factors having a direct or indirect effect on the structure of dental diseases during pregnancy include: demographic, social criteria, age, level of education, professional affiliation, duration and number of pregnancies, somatic pathology, heredity, drug and alcohol addiction, medication. Extreme factors influence the risk of caries: radiation background, industrial pollution, use of pesticides, etc. Besides, in recent years negative changes in the health state of pregnant women are associated with changes of social factors - worsening living conditions, nutrition, and prolonged emotional and psychological stress. With the increase in the number of pregnancies, the intensity of caries and inflammatory periodontal diseases increases. It was found that in case of artificial termination of pregnancy at 8-12 weeks there is a 2.4-fold increase of dental caries per year compared with non-pregnant women. The prevalence and intensity of dental caries in women who have two pregnancies or more increases with age.

To assess the risk of caries in patients of the examined groups examined schemes based on the risk-associated technique were developed (Table 2).

This approach is based on the principles of evidence-based medicine and includes a methodology for identifying the causes of dental caries by assessing risk factors for each individual patient, and then managing these risk factors using individual behavioral measures and treatment procedures following MaheswariS.U method., (2011) [Maheshwari, AK, Fourth-Order Iterative Method for Solving Nonlinear Equations, Appl. Maths. Comput., 211 (2009), 383-391].

Since plaque, ignoring fluoride, eating disorders and formed inadequate eating habits were in all women examined, they were at high risk for developing dental caries. In the group of the examined children the following risk factors of high degree of significance were identified: lack of perinatal education of mothers, unsanitary oral cavity in family members (mothers), intake of sweetened food and drinks, eating disorders (including night feeding), and plaque.

Table 2: Criteria for Risk Factors Assessment for Caries Development in Pregnant Women with Regular Miscarriage in their Anamnesis

№	Criteria	High risk level	Mean risk level	Low risk level
Social				
1	Low family income	+		
2	Low social status	+		
3	Lack of perinatal training	+		
Biological				
1	Age		+	
2	Number of births		+	
3	Component "N@" in the structure of NCE		+	
4	Paradontal pockets		+	
5	Food intake more than 5 times a day	+		
6	Health problems		+	
Preventive anamnesis				
1	Consumption of drinking water with optimal fluoride content			+
2	Dayly use of toothpaste containing F			+
3	Use of fluorated white salt			+
4	Adequate home oral hygiene			+

The program for the prevention of dental diseases during pregnancy in women with regular miscarriage implied the active participation of dental medical organizations serving pregnant women and antenatal clinics; the following personnel in particular: dentist, nurse of the dental office, dental hygienist, midwife, obstetrician-gynecologist. So, it is necessary to achieve close interaction of the dental institution with women's consultation in order to register pregnant women and refer them to the dentist. Manuals for various medical personnel and memos for pregnant women will be used as training material. The preventive measures will be managed by the chief physician (head of the department) of the dental medical organization, the head of the women's consultation. Monitoring program activities includes coverage of pregnant women by a dental education program; percentage of the number registered (analysis of annual reports); selective questioning of once every 2-3 years mothers of children of the first year of life about a visit to the dentist during pregnancy and knowledge on the prevention of dental diseases, as well as determining the coverage (%) of pregnant women from the number registered.

V. CONCLUSIONS

1. Pregnant women should be included into the risk group for the development of dental diseases.
2. Microbial landscape of the oral cavity, which tends to change under the influence of general and local factors should be regarded as the main cause of diseases of the oral cavity in pregnant.
3. Severe and prolonged chronic diseases of the oral cavity in the mother have an adverse effect on antenatal and postnatal development, are serious risk factors in the occurrence of pathology of deciduous teeth in children under 3 years of age, since these factors disturbs the formation of all tissues of the future tooth, as well as calcification of enamel and dentin.
4. The prevalence of dental caries in pregnant women with a regular history of miscarriage was 100% with an average intensity 12.3 ± 0.3 due to NCE ("N" - 5.5 ± 0.3 , "C" - 5.3 ± 0.3 , "E" - 1.5 ± 0.2). By the time of delivery, 94.8% were not sanitized.
5. Timely, dynamic and objective assessment of the clinical picture in the oral cavity will allow us to offer the necessary complex of therapeutic and preventive measures for the prevention of dental diseases during pregnancy, taking into account all individual risk factors.
6. Endogenous and exogenous drug and non-drug prophylaxis during pregnancy, increasing the level of hygienic knowledge will improve the dental health level and quality of life of a pregnant woman and provide antenatal prevention of dental caries in children.
7. During realization of preventive measures, the activity of dental caries in a pregnant woman, the cariogenic situation in the oral cavity, general and local risk factors for the development of dental diseases, and nutrition should be taken into account. Pregnant women are prescribed prophylactic agents with systemic (endogenous) and local (exogenous) effects. All prescriptions of systemic action should be coordinated with the obstetrician-gynecologist and therapist.

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