



"OPTIMIZATION OF THERAPEUTIC AND PREVENTIVE MEASURES FOR PERIODONTAL DISEASES OF PREGNANT WOMEN WITH IRON DEFICIENCY ANEMIA"

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Abstract

During pregnancy, a number of complex adaptive and protective changes in the nervous, endocrine, and cardiovascular systems occur in a woman's body. Along with other pathological changes in the body of pregnant women, among all the complications of the gestational process, iron deficiency anemia occupies the first place. In pregnant women with iron deficiency anemia, the likelihood of periodontal diseases increases.

Keywords: pregnancy, anemia, medicine, dentistry, iron deficiency.

Introduction

This monograph is devoted to improving the effectiveness of the prevention and treatment of periodontal diseases and the oral mucosa in women of reproductive age with iron deficiency anemia based on the study of their development, course and the development of pathogenetically sound methods of treatment on this basis. . To achieve the goals and objectives of the study, an examination and treatment of periodontal diseases and oral mucosa was carried out in 327 women of reproductive age with iron deficiency anemia. The conducted studies confirmed the expediency of using the proposed therapeutic complex with a differentiated approach in women of reproductive age with iron deficiency anemia.

The analysis of a selection of scientific publications (30 sources), including 19 domestic and 11 foreign ones on the topical issue of modern dentistry - periodontal





disease in pregnant women against the background of iron deficiency anemia, was carried out. The aspects of the high prevalence of periodontal diseases in this group of patients, the polyetiological nature of their occurrence, the complex mechanism of development, the features of treatment and prevention are considered. According to studies, in the first trimester, a common clinical form of the inflammatory process is catarrhal gingivitis, in the second trimester, gingivitis of pregnant women develops in the form of catarrhal or hypertrophic inflammation, less often ulcerative necrotic lesions of the gums, in the third trimester and prenatal period, the clinical picture of hypertrophic gingivitis of pregnant women becomes maximum. Taking into account that in most women the actual consumption of macro- and microelements and vitamins with food products is significantly lower than the level that ensures a favorable course of pregnancy and lactation, it is mandatory to use vitamin-mineral complexes in pregnant women with periodontal tissue diseases against the background of iron deficiency anemia. In the initial stages of generalized periodontitis, vitamin therapy is most effective. Foreign authors talk about the concept of micronutrient programming for the development of an unborn child during pregnancy, which consists in the expediency of using multivitamin complexes. The main task of dentists, obstetricians and gynecologists is to form an understanding of the importance of timely dental care in pregnant women by creating a positive motivation for treatment. The optimal periods of dental examinations have been determined and the need for a differentiated approach to the implementation of therapeutic and preventive measures has been substantiated.

Literature Review

The incidence of pregnant women has a negative impact not only on the health of the mother, but also on her offspring and subsequent generations. In the general structure of diseases of pregnant women (000-099), the first place is occupied by the threat of abortion (55.00-77.44%, 2010-2015), blood diseases are in second place (050-089). These parameters are manageable pathologies, which indicates the socio-demographic and psychophysical factors of the distress of pregnant women. The next in frequency of occurrence are diseases of the genitourinary system (N00-N99) - 12.10% (2010) and 13.37% (2015) (Vinogradova M.A., Fedorova T.A., 2015; Popova N. M., Sokolovskaya T. A., 2016).

For the Russian Federation as a whole, according to the FSN [source of information state reporting form (FSN) No. 32], the five leading pathologies (2010) of pregnant women were: anemia (34.74% per 100 births); diseases of the genitourinary system (19.16%); the threat of termination of pregnancy up to 22 weeks (19.12%); edema,





proteinuria and hypertensive disorders (18.06%) and pathological conditions of the fetus (15.92%). Similar processes were observed in 6 federal districts, while for the leading pathology - anemia - the all-Russian indicators exceeded the results for the North Caucasus (North Caucasian Federal District - 50.08%) and the Volga Federal District (VFD - 37.73%) (Popova N.M., Sokolovskaya T. A., 2016).

According to WHO experts, the frequency of IDA in pregnant women varies from 21 to 80% (Chernichenko E. E., 2001). Over the past 10 years, the frequency of cases of IDA, according to the survey of the Ministry of Health of the Russian Federation, has increased by 6.3 times (Shekhtman M. M., 2004). In the Volgograd region over the past five years, the detection rates of IDA in pregnant women increased by 11% (minutes of the Meeting of the AGPS Association, 2003), currently there is a downward trend - 29.9% (2014-2017).

Iron deficiency anemia still remains the leading pathology and is registered in 95.0% of pregnant women and 40.0% of women of reproductive age (Schmidt D.V., 2009; Isamulaeva A.Z., 2016).

The diagnosis of "iron deficiency anemia" is made by a general practitioner according to the data of clinical and laboratory studies, according to the WHO classification, at a concentration of hemoglobin (Hb) in the blood: 110-90 g / l - mild severity; 90-70 g/l - medium; less than 70 g/l - severe (Shaposhnik O. D., Rybalova L. F., 2002; Vinogradova M. A., Fedorova T. A., 2015).

Iron deficiency in the body of a pregnant woman causes the occurrence of placental insufficiency, contributing to spontaneous abortion, premature birth and the development of fetal pathology, which provokes hypoxic-ischemic injuries, intrauterine growth retardation, cognitive abnormalities (Petrichenko N.V., Barkova E.N., 2015 ; Ivanova M. A., Vorykhanov A. V., 2016).

With IDA, mineral and protein metabolisms are disturbed, which provide the most important functions of the body. As a result of the research, the authors (Burlev V.A., 2002; Klochkova - Abelyans S.A., 2005) propose to consider IDA as a systemic organ pathology that leads to functional and morphological changes in the organs and tissues of the body (Vinogradova M.A. , Fedorova T. A., 2015; Sokolovskaya T. A., Popova N. M., 2016, Lomova A. S., 2016).

The statistics of recent years on the study of the dental health of pregnant women revealed a high need for dental care - from 50.0 to 78.7% (Bakhmudov B.R., Bakhmudova Z.B., 2000; Zhulev E.N., Lukinykh L.M. ., Pokrovsky M. Yu., 2002; Bochkovskaya O. O., Solovieva A. M., 2006).

Studies conducted in our country and abroad have shown that there is a close relationship between dental pathology of the oral cavity and





nature of the course of pregnancy. The revealed facts of an increase in the frequency and severity of periodontal tissue pathology, diseases of the oral mucosa during the pathological course of pregnancy (IDA) are beyond doubt (Pokrovsky M. Yu., 2002; Nosova V. F., 2003; William H. Bowen, 2002; Murashko A. V., 2004; Tolmacheva S. M., Lukinykh L. M., 2005; Alieva M. S., Omarov S.-M. A., 2005; Suleymanova I. G., 2008).

Many inflammatory periodontal diseases have regional features of development, course and treatment associated with the genetic characteristics of the population of the territory, with its iodine status, environmental, epidemiological situation and the organization of medical care (Bulkina N.V., 2014).

Diagnosis and treatment of inflammatory periodontal diseases is not only a dental, but also an important general medical, social problem (Karaeva A. Yu., 2007; Fabrikant E. G. et al., 2008; Arutyunov S. D. et al., 2009; Tarasova Yu. G., 2011; Williams RC et al., 2008, Somma F. et al., 2010). According to WHO, inflammatory periodontal diseases in different age groups are detected in 80-100% of the adult population (Bareer G. M., Lemetskaya T. I., 1996; Bezrukova A. P., 1999; Grudyanov A. I., Bezrukova I. V., 1999; Orekhova L. Yu., 1999; Dmitrieva L. A., 2001, 2012; Grigoryan A. S., 2004; Tsepov L. M., 2006; Yanushevich O. O. et al., 2010).

"Chronic catarrhal gingivitis" (K05.1) is the initial stage of destructive changes in the periodontium, in which the reserve forces, reparative capacity and adaptation of periodontal tissues are still quite high, which is often the key to successful treatment. At the same time, this stage of periodontal disease does not have a pronounced clinical picture and subjective complaints, and therefore remains without due attention of dentists and patients themselves, which leads to the progression of pathological processes and aggravation of the severity of the manifestation of periodontal disease (Orekhova L. Yu., 2004; Frolova O. A., 2004; Shuster D. I., 2006; Levina N. M., 2017). The main reason for the development of inflammation in periodontal tissues is plaque (microbial plaque), where microorganisms and their metabolic products are present, which cause local inflammation (Ivanov BC, 2001; Barer G. M., Yanushevich O. O., 2002; Grudyanov A. I., 2004; Vavilova T. P. et al., 2006; Efanov O. I. et al., 2006; Dmitrieva L. A. et al., 2007). Numerous studies have shown that the pathogenesis of periodontal diseases is based on a complex interaction of pathogenic microflora and factors of human immune reactivity.

According to the literature, it is known about the relationship between obstetric pathologies and the nature of changes in the oral cavity of a pregnant woman (Kurbanova S. Kh., 2004; Denisenko L. N., 2006; Bakhmudov B. R., Bakhmudova Z.





B., 2009). The studies of these authors show a high percentage of periodontal diseases. During pregnancy, the prevalence of gingivitis, mild and moderate periodontitis varies from 49.1 to 100%. It was found that in multiparous women gingivitis occurred in 57.5%, in primiparous women in 45.9%, there is information about the development of periodontal pathology against the background of systemic diseases of the body: thyrotoxicosis, diabetes and others (Akhmedova A.R., 2008; Kirilova EH, 2009; Gaffield ML, Colley BJ, 2009).

Chronic catarrhal gingivitis is detected most often - up to 90% of cases, chronic hypertrophic gingivitis - from 5.2 to 41.5% (Kutusheva P.P., 2009; Levina N.M., 2017). The first clinical signs of catarrhal gingivitis are detected already from the 2nd month of pregnancy (Kirillova E. H., 2009).

However, in the initial period of pregnancy, from 3.1 to 15.1% of pregnant women turn to dentists for preventive purposes (Bochkovskaya O. O., Solovieva A. M., 2000; Gadzhiev R. S., Rasulov K. M., Bulgakov D. M., 2004, Leontiev V. K., Pakhomov G. N., 2006).

The clinical picture of inflammatory periodontal diseases in pregnant women is quite multifaceted, difficult to diagnose and has its own characteristics at the stages of treatment (Tolmacheva S. M., Lukinykh L. M., 2005, Orekhova N. S., 2007, 2009).

The most dangerous when carrying out dental treatment measures are the critical periods of embryogenesis: 1-3rd, 3-16th weeks, when taking medications can lead to fetal death and (or) the formation of multiple malformations (Rabinovich S. A., Zoryan E. V., 2005).

It has been established that inflammatory periodontal diseases in the mother are associated with a risk of preterm birth, and as they progress during pregnancy, the risk increases, but the reason for this relationship is unclear. It is assumed that the increased risk of preterm birth may be due to hematogenous spread of infection to the pelvic organs or, more likely, the general mechanisms of the inflammatory response to microorganisms in the oral cavity and genital tract. The association of "maternal periodontitis" with adverse pregnancy outcomes is important from a public health standpoint, given that gingivitis, periodontitis is preventable and treatable, in the aggregate, adverse pregnancy outcomes lead to a significant burden on health care and social security (Trigolos N. N., Makedonova Yu. A., Firsova I. V., 2018).

In this regard, the choice of effective, safe methods of treatment and prevention of gingivitis in pregnant women is of particular importance to reduce the risk of developing and exacerbating periodontal diseases (Orekhova N.S., 2007).





Treatment and prevention of gingivitis, periodontitis include early sanitation of foci of chronic infection, which is also important for the prevention of intrauterine infection of the fetus.

Despite the relevance of the problem, modern methods of oral care, prevention and treatment of gingivitis are not sufficiently adapted for pregnant women and do not allow timely arrest of the inflammatory process in the periodontium (Dmitrieva L.A., 2014). Thus, the search for new approaches to prevention and treatment of gingivitis in pregnant women, in the early stages of the development of the inflammatory process in the periodontium, remains one of the topical tasks of dentistry and requires the formation of new approaches and directions. It is obvious that the implementation of preventive and adequate therapeutic measures, the expansion and implementation of the level of sanitary and hygienic knowledge can improve the dental level of health and the quality of life of a pregnant woman (Orekhova N. S., 2007; Dubrovskaya M. V., Ivashchenko Yu. Yu., 2011; Prohodnaya V.A., 2018).

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