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# ODONTOLOGICAL TREATMENT IN SEROPOSITIVE PREGNANT WOMEN

Patrícia Moreira da Silva Guimarães<sup>1</sup>, Tayná Gabriele Eschiareti<sup>1</sup>, Edmilson da Silva Esteves<sup>1</sup>, Idiberto José Zotarelli Filho\*<sup>2</sup> and Leandro Moreira Tempest<sup>1,2</sup>

<sup>1</sup> University Center North Paulista (Unorp) - São José do Rio Preto – SP, Brazil. <sup>2</sup> Post Graduate and Continuing Education (Unipos), Street Ipiranga, 3460, São José do Rio Preto SP, Brazil

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\*Corresponding author: Idiberto José Zotarelli Filho

# **ABSTRACT**

Pregnancy is a particularly vulnerable time for every woman who when combined with a diagnosis of HIV and poor oral health can have drastic consequences for her oral and mental health, increasing the risk of low birth weight babies and even premature births. Therefore, we can consider that the Dental Surgeons, due to the multidisciplinarity of their education, are in a privileged position to inform women about their physiological changes inherent to pregnancy and the effects of these changes on their oral health. They are also able to follow your treatment, contributing to the maintenance of good oral hygiene both in the outpatient setting and at home so that the effects of this period are only transient, providing greater safety, tranquility during this period. It is known that through extensive scientific studies that the relationship of oral diseases and their negative repercussions on the general health, not only of pregnant women, but also of the baby, increase the need for dental prenatal care. Dental prenatal care is recent in dentistry, and there is still little knowledge and understanding on the subject, in integrating the knowledge of professionals about HIV and its correlation with systemic dentistry, as well as the elaboration of a detailed anamnesis of the seropositive pregnant patient, and actions that allow the application and teaching of this knowledge and preventive techniques to the seropositive patient, such as the need to maintain their healthy periodontium through daily brushing and flossing, as well as the correct use of antiretroviral medications. It is evident the need for dental follow-up by a qualified dental surgeon who feels the moral duty to pass on knowledge to the seropositive patient and that this knowledge collaborates to create safe health circumstances for themselves and the birth of the

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# **INTRODUCTION**

The world is experiencing "The Second Wave of acquired immunodeficiency syndrome (AIDS)." This release was accompanied by alarming figures on the prevalence of new Human Immunodeficiency virus (HIV) cases in the Brazilian population despite the promise of a cure for HIV being relatively close, based on scientific advances and research on the cure of the virus. The responsibility for eradicating the disease is related not only to the most effective and potent drugs, prevention of transmission but also to the complexity of human mentality and sexuality, as well as cultural, political and socioeconomic factors [1]. It is necessary to consider all contexts that involve this complex mentality that involves the sexual habits of human beings under the sociocultural context that has been shaping over the years each individual and their

intellectual formation inside and outside the family [2-5]. The HIV is the etiological agent of AIDS, attacking the body's defense cells, mainly T4 + lymphocytes, leading to the impairment of the individual's protection system, being transmitted mainly through sexual contact, blood and also vertical transmission [7]. Although AIDS was initially described as one related to risk behavior inherent to the sexual instinct of the human being, it is more prevalent in groups where partner turnover and protection awareness are lower. Currently, the numbers show that the HIV epidemic is not restricted to these groups only because the number of infected women is growing alarmingly, especially among women with stable and reproductive age relationships [7]. The AIDS epidemic among women has had devastating consequences not only for themselves but also for children, as the increase in infected women may also be linked to the increase in the number of children carrying the virus as a result of vertical

transmission during pregnancy, childbirth. or breastfeeding [8]. In Brazil, from 2000 to June 2018, 116,292 HIV-infected pregnant women were reported, with a higher prevalence in poorer regions such as Southeast, South, and Northeast, which indicates that there is still large misinformation and lack of prevention in places where the population is lacking in resources and information [6]. In today's society, the idea still persists in many communities that contraception and prevention is a woman's obligation, since it is the woman who is "responsible" for enduring the pregnancy during the nine months and contradictory there is the "Taboo" of those women who are cautious and concerned about the use of Sexually transmitted disease (STD) prevention means are considered unclean and unworthy [6]. There are already campaigns to raise awareness of men's co-responsibility regarding the couple's sexual and reproductive health and the couple would no longer be a bystander and would become an active part in decision making throughout the process of prevention, family planning, responsible parenting, education. of children and family routine [2]. Associated with this, we live in a chauvinistic society, where we have the submission, financial and emotional dependence of women to men, where most women delegate the decision-making power over sexual activities protected or not to the partner, end up making the female still more vulnerable to STD / HIV / AIDS and often this disease is accompanied by an unwanted pregnancy. In addition to this, we have racial, cultural and psychosocial issues that increase women's vulnerability to the HIV virus [2]. It is not uncommon to find numerous cases of seropositive pregnant women with STD, including HIV in dental offices, making it necessary for dentists to know the protocol of care for these future mothers so that they can be treated as best as possible. excellent maintenance of oral health during pregnancy [2]. According to the oral health booklet "Comprehensive care for patients with HIV / AIDS and other STIs, from the STD/AIDS PROGRAM of the City of São Paulo", the central focus of attention to these people is based on "Integrality and Humanization", which means, not only prevention, care and rehabilitation actions, but also a good quality of oral hygiene, prioritizing prevention above all promoting diagnoses, early treatment of opportunistic oral manifestations, clarifying STD and AIDS prevention and control practices, promote family involvement in this unique moment of the pregnant woman, adjust the oral environment by means of ART (atraumatic restorations) with glass ionomer sealing cavitations and promoting the balance of the microbiota in the oral cavity, guide hygiene with instructions of brushing techniques and guidelines on the least cariogenic diet possible [4].

Given these facts, it is necessary the knowledge and performance of the Dentist Surgeon in prenatal consultation focusing on guidance and education on oral hygiene care and prevention of oral diseases as well as guidance on the possible manifestations of the virus in the oral cavity [7]. In addition to the early diagnosis of HIV, other tests such as Syphilis and Hepatitis should be requested and recommended during prenatal care and the Dentist is legally able to request them if they have not yet been performed by the pregnant woman. All these care will help in correct preventive care for the mother and avoiding major complications to the pregnant woman and the child [7]. Therefore, the present study aimed to discuss the importance of dental prenatal care in the monitoring of seropositive pregnant women and their complications associated with the gestational period and the HIV.

# MATERIALS AND METHODS

This work consists of a scientific literacy survey of the collection and obtaining the knowledge available in the scientific articles that addressed the manifestations of HIV in the oral cavity during the pregnancy of seropositive patients. We searched articles with the date of publication between the years 2009 to 2019 and were selected only those related to the theme addressed. The PubMed, Lilacs, Scielo, Medline databases were used as a source, using the following descriptors "HIV and its oral manifestations", "Oral manifestations during pregnancy", "Seropositive patients", "HIV and Dentistry", "HIV and the pregnancy".

## **Development**

In the case of pregnant women carrying the HIV virus, it is known that it is possible to transmit the AIDS virus to their baby during pregnancy and / or delivery and after birth through breastfeeding, so pregnant women who may be diagnosed with HIV. HIV will receive antiretroviral drug treatment throughout pregnancy and in some cases, also at birth, this treatment prevents vertical transmission of HIV to the child. The baby will also receive syrup antiretroviral treatment immediately after birth [1]. In pregnant women who have never received retroviral treatment, the initial choice to fight the virus is TDF (Tenofovir) + 3TC (Lamivudine) + EFV (Efavirenz) which will be given in a fixed dose of 1 and if possible should be started. In pregnant women even before the results of genotyping, CD4 and viral load tests, this maneuver allows achieving viral suppression as soon as possible [1]. The experience of motherhood by itself already requires a huge psychic and social reorganization and if in this experience there is the presence of HIV this experience can lead to an even greater emotional burden as concerns about the baby's health such as possible contamination by the virus, In addition to frustration at the prospect of not being able to breastfeed your child, allied to the concern regarding antiretroviral treatment to which your baby will be subjected, generates an immense emotional overload with moments interspersed with fears, insecurities, prejudices and even feelings of guilt [1]. In addition to these important psychic and social reorganizations, during the gestational period, women undergo other types of changes such as biological and socioeconomic changes, and all these changes have an important biopsychosocial impact on future mothers and the environment in which they live, both family and their community [1].

These biological changes will affect your entire body, including the oral cavity, sex hormones have a high peak, and women experience changes in sex steroid levels, causing changes in the amount of circulating hormones in the bloodstream and during these periods of hormone levels. fluctuating many problems can occur in the pregnant woman's stomatognathic system considering that there are changes in the microbial population which generate changes in the periodontium that can lead, for example, to several unwanted events in her oral cavity [3]. These physiological changes prepare the pregnant woman for childbirth and breastfeeding. aiming at the comfort and healthy mother/child, but these changes often, although beneficial, nevertheless cause adverse effects on the woman's body [12]. Some of these physiological changes include weight gain, restriction of respiratory function, increased frequency of urination and decreased heartbeat, etc., and these changes eventually lead the pregnant

woman to various oral changes such as nausea, increased salivation and changes in periodontal. This set of events during pregnancy associated with daily habits can result in the onset or aggravation of carious and periodontal diseases [5]. Unfortunately, the oral health of pregnant women, especially seropositive pregnant women, even though there is an awareness that it is an integral and inseparable part of their systemic health, is generally neglected during pregnancy, so it is important to emphasize that prenatal care should be organized to meet the real needs of a pregnant woman and dental care should necessarily be within this care and should be facilitated by the pregnant woman [12]. The oral cavity of pregnant women with HIV/AIDS is an anatomical site often affected by opportunistic diseases and malignancies of different etiologies. Studies indicate that more than forty conditions have been identified and associated with mild, moderate or severe immunosuppression [10]. Therefore, HIV pregnant women may experience, in addition to all events considered "normal" within a pregnancy, many other adverse events with more drastic consequences such as Acute Retroviral Syndrome (SARS) that generates a set of clinical manifestations with fever, adenopathy., lymphadenomegaly, sweating, pharyngitis, rash, myalgia, and headache. SARS usually occurs between the first and third week after infection and in addition to the symptoms already mentioned, HIVpositive pregnant women may have nausea, vomiting, diarrhea, weight loss, oral ulcers, headache and eye pain, aseptic meningitis, sensory or motor peripheral neuritis, facial nerve palsy or Guillain-Barré syndrome which is an autoimmune response of the body that attacks the nervous system itself causing reduction or absence of reflexes [7].

The onset of oral candidiasis and hairy oral leukoplakia and Kaposi's sarcoma may early indicate a state of severe immunosuppression and a possible evolution of HIV to AIDS [7]. Pregnant women with HIV often have uncontrolled herpetic episodes and this can result in severe and atypical clinical conditions leading to difficulties or refusal by the pregnant woman to attend the dental office for routine consultations or even hamper her oral hygiene at home due to pain. that herpes can cause [12]. It is not uncommon for these pregnant patients to present other opportunistic oral manifestations caused by HIV infection sialolithiasis, lichen xerostomia, planes, mucoceles, ranunculus, hemangiomas, and lipodystrophy (especially facial lipoatrophy). However, these oral impairments depend on the pregnant woman's immune status and on the time of disease progression and on whether the patient adhered to therapeutic regimens as soon as possible after the diagnosis of the disease. Candidiasis and hairy leukoplakias continue to be important markers of the disease to this day [9]. Some drugs used to combat the HIV virus can also cause xerostomia that associated with the change in oral PH during pregnancy may result in a further aggravating for the oral health of pregnant women. Other health problems of seropositive pregnant women such as periodontitis can cause loss of supporting bone around the tooth. If this periodontitis is associated with the constant osteoporosis caused by hormonal peaks during pregnancy, the results would be potentially catastrophic in the cavity. of the pregnant woman [3]. Pregnant women who have the onset of periodontal disease are seven and a half times more likely to develop preterm birth and low birth weight babies, there is a theory that bacteria and their toxins in the mouth can reach the uterus through the bloodstream and interact with The walls of the uterus stimulate the production

of inflammatory substances that cause unexpected events in the uterine muscle leading to the onset of labor [5]. A healthy periodontium has the function of surrounding the alveolar bone and the root part of the teeth, thus serving as protection, insertion of the tooth in the jaw bone tissue and maintaining the integrity of the surface of the oral cavity chewing mucosa [5]. Gingivitis is a very common inflammation in pregnancy, it affects the gums that surround the teeth without radiographic evidence of bone loss. It is mainly triggered by plaque, and its accumulation should be prevented or minimized daily with brushing and flossing. This plaque buildup beyond the level acceptable by oral biology causes the gum to react and inflame, local vascularization will increase resulting in redness, bleeding, and gum hypertrophy, associated with this picture is increased tissue fluid flow and a change in immune response [3]. Gingivitis can be modified by systemic factors, such as sex hormones released during pregnancy, drugs taken by pregnant women, among others, and these factors can cause an exaggerated plaque response to the teeth resulting in even more exacerbated gingival inflammation, especially if there is no daily control of plaque, as this type of gingivitis can develop in the face of relatively small amounts of dental plaque [3]. During pregnancy, another periodontal change of multifactorial cause that may occur is the onset of gravid granuloma, which consists of a nodule, sessile or pedicled with a reddish color, which may regress after pregnancy but should be followed and referred for biopsy [12]. Due to all these factors, the maintenance of dental prenatal care is essential since the discovery of pregnancy by the woman with the HIV virus, but due to the immense misinformation in the dental professional, there is still a great fear on the part of the dentist to attend pregnant women If this pregnant woman is related to the HIV virus, this fear, and refusal to perform prenatal dental monitoring is even greater [12].

It is worth remembering that a dental professional refusing to treat a pregnant patient because of her HIV status is not only unethical but also illegal [8]. Studies indicate that a minority of pregnant women, seropositive or not, obtain access to dental guidance during pregnancy [11]. The first trimester of pregnancy is considered the most critical period of pregnancy and therefore, it is recommended that the prenatal dental should be started in the last trimester, yet there are no impediments for the pregnant woman to visit her dentist periodically and so he can To monitor possible needs that arise during your pregnancy, these consultations are beneficial and procedures are completely safe for the future mother and her baby, avoiding future damage to both [11]. These consultations allow, beyond what may seem a simple follow-up, prevention against the emergence of more complex oral problems, since the dental prenatal is mainly based on prevention thus avoiding the aggravation of problems already installed and prevents the appearance of other diseases. Almost all procedures can be performed at any gestational period as long as they are emergency, but procedures such as extraction and endodontic treatment should be left whenever possible, to be performed only in the second trimester of pregnancy [4]. The clinical management of pregnant women with HIV during the prenatal period includes comprehensive care provided by a multidisciplinary team composed of other specialists in the areas of Nursing, Psychology, Nutrition and Social Work. Establishing a good professional-patient relationship is one of the objectives of the initial assessment. It is necessary to use a simple and reassuring language to explain to the pregnant woman all the essential aspects of HIV infection, its

consequences for her oral cavity and also the importance of dental follow-up thus contributing to adherence to follow-up and treatment [7].

### Conclusion

It can be concluded that pregnancy is characterized by several hormonal and immunological changes, which are the main responsible for the increase of the susceptibility of the pregnant woman to numerous infections and oral alterations as well as the intensification of pre-existing problems and if this pregnancy is accompanied by the diagnosis of the virus. HIV/AIDS this picture is exacerbated much more not only physically/ physiologically but also in the patient's psychosocial context. Therefore, it is essential to recommend the implementation of prenatal dental care to these patients, thus providing a gestational period without major oral complications and that may cause harm to both the future positive mother and the baby. Thus, the dentist must have the knowledge to become a qualified professional to assist not only the early diagnosis of HIV in pregnant women but also to collaborate with a multidisciplinary team in prenatal care of pregnant women already diagnosed. for HIV/AIDS. It is still necessary a lot of efforts on the part of professionals for the search of knowledge that allow them to demystify the AIDS disease and, thus, improve the dentist's perception of prenatal care to seropositive pregnant patients.

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