


Gestational syphilis: the importance of proper treatment in the prevention of congenital syphilis

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ABSTRACT

Introduction: Syphilis is a sexually transmitted infection that is easy to diagnose and treat, caused by the bacterium *Treponema pallidum*, easy to diagnose and treat. Congenital syphilis, transmitted from mother to fetus, is one of the main causes of abortion, stillbirth, birth mortality, low birth weight, prematurity, and malformations. **Objective:** to analyze the relevance of the adequate treatment of gestational syphilis in the prevention of congenital syphilis, as well as possible factors that negatively impact the incidence of this disease. **Methodology:** This is a bibliographical review, where research was carried out on Google Scholar and Scielo bases for publications on inadequate treatment and factors that fuel high rates of congenital syphilis in the country by the year 2022, in addition to the epidemiological bulletin and the

Clinical Protocol and Therapeutic Guidelines for Comprehensive Care of People with Sexually Transmitted Infections (IST) both made available by the Ministry of Health (MS). **Results:** It is observed that the main difficulties in the reduction of the vertical transmission of syphilis are or are not treated by the partner and that treatment and follow-up are carried out inadequately by the health team. Among the data analyzed, there is evidence that 94.14% of children with congenital syphilis are more children who undergo prenatal follow-up, therefore, only 42.72% of pregnant women receive adequate treatment. It is important to note that in this same study, it was found that only 45.63% of the two partners received simultaneous treatment with the pregnant woman to break the contamination chain. **Conclusion:** Congenital syphilis can be prevented when an early diagnosis occurs with adequate treatment for pregnant women and sexual partners during or pre-natal. It becomes evident, in this context, the importance of continuing education relevant to health professionals and the awareness and education of the general population about the importance of pre-natal and gestational and congenital syphilis, aiming a better adherence to the treatment and monitoring of both pregnant women and two partners

Keywords: Gestational syphilis, Congenital syphilis, treatment, prevention.

1 INTRODUCTION

Syphilis is a Sexually Transmissible Infection (IST) that is easy to diagnose and treat, which remains a global public health problem, mainly in developing countries such as Brazil (MAGALHÃES et al., 2011; ARAÚJO et al., 2019). It is caused by a bacterium, or *Treponema pallidum*, and can appear in many cases asymptomatic or manifest signs and symptoms among them: painless ulcer in the genital region, skin and neurological lesions, and in various other organs, depending on the stage and evolution of the doença. When it affects pregnant women, it can be transmitted mainly by transplacental hematogenous spread to the fetus, causing congenital syphilis (BRASIL, 2020).

Congenital syphilis, transmitted from mother to fetus, is one of the main causes of abortion,

stillbirth, birth mortality, low birth weight, prematurity, and malformations. The vertical transmission of syphilis can occur in any phase of the infection, but it is higher in the initial stages where there is greater bacterial replication. Around the 18th week of gestation, it occurs during the transplacental contagion of the fetus, meaning that the infection from this already begins in the second phase of the pregnancy (FAVERO et al., 2019; SOARES et al., 2020).

Pregnancy becomes a favorable period for adequate diagnosis and treatment, and the Ministry of Health establishes a minimum routine of care recommended for prenatal follow-up, consisting of several consultations and requests for laboratory tests, including tests for syphilis. The test for syphilis must take place at the first prenatal visit (preferably not in the first trimester of pregnancy), at the beginning of the third trimester (28th week), and at the time of delivery or abortion, regardless of previous exams (BRASIL, 2020; RAMOS et al., 2022).

The Ministry of Health has aimed at the elimination of Congenital Syphilis in Brazil since 1995. Efforts to achieve this have started following the proposal of the Pan-American Health Organization (PAHO) and the Health Organization (WHO) that have as a goal for years to come 2000 to reduce the incidence of congenital syphilis for values less than 1 case per 1000 live births per year (FAVERO et al., 2019). Unfortunately, the country did not present any success in this project, once the current days of congenital syphilis remain an evident public health problem in the country.

In the year 2020, there were 61,441 cases of syphilis registered in pregnant women in Brazil, with a total of 22,065 cases of congenital syphilis. The incidence was 7.7 cases/1000 live births in the country, values much higher than those recommended still in 1995 for the years 2000, the same after 20 years after the final term for the goal of elimination of congenital syphilis (BRASIL, 2021).

Aiming at the confrontation of this endemic disease in the country, the Ministry of Health (MS) created an agenda of strategic actions to combat syphilis in the years 2020-2021. Among the proposed actions, the strengthening of the partnership of the MS itself with institutions is cited. of teaching, research, and extension, also aiming at continuous education, updating, and improvement of the technical knowledge on the subject, among them the appropriate form of treatment of these morbidities.

The objective of this work is to analyze the relevance of the adequate treatment of gestational syphilis in the prevention of congenital syphilis, as well as possible factors that negatively impact the incidence of this disease.

2 METHODOLOGY

This is a bibliographical review, where searches were carried out on Google Scholar and Scielo bases for publications on inadequate treatment and factors that fuel the high rates of congenital syphilis in the country by the year 2022. Regarding the data of the epidemiological bulletin, the data Forum was withdrawn from the own document provided by the Ministry of Health of Brazil. The reference considered as adequate treatment for gestational syphilis is available in the Clinical Protocol and Therapeutic

Guidelines for Comprehensive Care of People with Sexually Transmitted Infections (IST) also made available by the Ministry of Health in the year 2022.

3 RESULTS AND DISCUSSION

Currently, the administration of benzylpenicillin benzathine is considered the appropriate treatment for gestational syphilis, the only drug with proven efficacy in the dual treatment of mothers and babies during pregnancy. According to the recommendation of the MS, only a positive treponemal test indicates the start of treatment for the pregnant woman, and it is still recommended at the same time to collect a non-treponemal test (VDRL) to perform the cure control of the disease (BRASIL, 2022).

The treatment of the partner also becomes important in the context to interrupt the chain of transmission, being these, two passages reported in the analyzed literature. The recommended dose of benzathine benzylpenicillin for pregnant women with recent previous serology is 7.2 million units, being applied intramuscularly in the ventral-gluteal region. The treatment is divided into weekly intervals for 3 weeks, being administered 2.4 million IU per week (BRAZIL, 2022).

According to BRAZIL (2022), the Ministry of Health recommends the monthly monitoring of pregnant women with the non-treponemal test, being the VDRL the most used currently, to guarantee the success of treatment and no reinfection of the pregnant woman. Currently, it is considered an effective treatment in which the titration of two or more dilutions remains for 3 months after the beginning of the same.

When we consulted the literature selected for the study, we observed that the main difficulties in reducing the vertical transmission of syphilis are or are not treated by the partner and that the treatment and follow-up were carried out inadequately by the health team. It was verified that the performance of a second VDRL performed during the pre-natal period decreased the number of unfavorable defects, in 23.5% of the parturients who had a 2nd sample versus 76.5% of two unfavorable defects in the patients with a single sample. It is still evidenced that 75% of pregnant women without adequate treatment had unfavorable outcomes during pregnancy and/or not after delivery. (ARAÚJO et al, 2019).

Another given that corroborates the need for better treatment of pregnant women with Gestational Syphilis is the work carried out in Maringá-PR, which shows that 94.14% of children with congenital syphilis are more children who will undergo prenatal follow-up. Therefore, only 42.72% of the pregnant women received adequate treatment. It is important to note that in this same study, it was found that only 45.63% of the two partners received simultaneous treatment with the pregnant woman to break the contamination chain. Among the main reasons alleged by partners who are aware of the diagnosis during or pre-natal and who refuse to take the medication is because they will not feel competent, because of the medication administered in an injectable manner, and for not accrediting the treatment and its benefits. (FAVERO et al, 2019).

Following this same line of reasoning, there is a third study report stating that in two cases of congenital syphilis analyzed, 84% were born out of more than one pre-natal visit and 57% in two more cases had syphilis diagnosed during gestation. Still, only 14% of the most are treated adequately and when two partners are treated, only 11% are treated. It is observed that pregnant women are still reluctant to tell their partner about the existence of an STI, using their reaction, a fact that helps to support or not treat two partners and to reinfection of pregnant women. (MASCARENHAS, ARAÚJO and GRAMACHO, 2016)

4 CONCLUSION

Congenital syphilis can be prevented when an early diagnosis occurs with adequate treatment for pregnant women and sexual partners with syphilis throughout the period that involves prenatal care in Basic Care, a condition that appears relevant to impact the associated minimization with vertical transmission.

In recent years, there has been an increase in the rate of incidence of congenital syphilis and detection of syphilis in pregnant women, not in Brazil, which is conducive to the implementation of the Strategic Action Agenda for the reduction of congenital syphilis, with this action being proposed as work bus between the various areas of the Ministry of Health.

The relevance of exporting the aspects that can be considered as difficulties for the strategic actions turns to help in the construction of new projects and in the implementation of policies that are better applied given the needs of the teams that work in the health network.

In this way, after the review is carried out, we emphasize the importance of continuous education relevant to health professionals so that from this point on, the operational errors that lead to inadequate treatment of pregnant women can be minimized. It is also important to raise awareness and educate the general population about the importance of a prenatal period that has happened and about gestational and congenital syphilis, aiming for better adherence to treatment and follow-up for both pregnant women and two partners, thus advancing toward the goal of elimination of congenital syphilis in the country.

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