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INTEGRATIVE LITERATURE REVIEW ARTICLE

THE MANAGEMENT OF GESTATIONAL SYPHILIS IN THE PRENATAL

O MANEJO DA SÍFILIS GESTACIONAL NO PRÉ-NATAL

EL MANEJO DE LA SÍFILIS EN EL PRENATAL

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ABSTRACT

Objective: to analyze the management of gestational syphilis during prenatal care. ***Method:*** this is a bibliographic study, type integrative review, developed through a systematic search in the VHL with the health descriptors, in the databases LILACS, MEDLINE and BDENF during the month of June. Original articles in full were selected; in Portuguese, English and Spanish; published between 2017 and 2019. CASP was used to analyze the eligibility of studies, presenting them in the form of figures and analyzing them in a descriptive manner. ***Results:*** 303 articles were found and, after filtering them with the eligibility criteria, seven articles were selected for this review. ***Conclusion:*** it makes sure that the management of gestational syphilis was performed inappropriately in most studies analyzed due to late diagnosis and treatment, non-adherence to treatment, by the pregnant woman and her partner, reduced number of prenatal consultations, professional insecurity of carry out the therapeutic schemes and organizational problems of health services. It is perceived the need to implement more effective measures in the professional context and improvement of health services to carry out the appropriate management. ***Descriptors*:** Syphilis; Prenatal Care; Primary Health Care; Obstetrics; Nursing; Nursing Care.

RESUMO

Objetivo*:** analisar o manejo da sífilis gestacional durante a assistência pré-natal. ***Método*:** trata-se de um estudo bibliográfico, tipo revisão integrativa, desenvolvido por meio de uma pesquisa sistemática na BVS com os descritores em saúde, nas bases de dados LILACS, MEDLINE e BDENF durante o mês de junho. Selecionaram-se artigos originais na íntegra; em português, inglês e espanhol; publicados entre 2017 a 2019. Utilizou-se o CASP para análise de elegibilidade dos estudos, apresentando-os em forma de figuras e analisando-os-de maneira descritiva. ***Resultados*:** encontraram-se 303 artigos e, após filtrá-los com os critérios de elegibilidade, sete artigos foram selecionados para esta revisão. ***Conclusão: certifica-se de que o manejo da sífilis gestacional foi realizado inadequadamente na maioria dos estudos analisados devido ao diagnóstico e ao tratamento tardios, não adesão ao tratamento, pela gestante e pelo parceiro, número reduzido de consultas pré-natais, insegurança profissional de realizar os esquemas terapêuticos e problemas organizacionais dos serviços de saúde. Percebe-se a necessidade de implementar medidas mais eficazes no contexto profissional e melhoria dos serviços de saúde para a realização do manejo adequado. ***Descritores*:** Sífilis; Cuidado Pré-Natal; Atenção Primária à Saúde; Obstetrícia; Enfermagem; Cuidados de Enfermagem.

RESUMEN

Objetivo: analizar el manejo de la sífilis gestacional durante la atención prenatal. ***Método:*** es un estudio bibliográfico, tipo revisión integradora, desarrollado a través de una búsqueda sistemática en la BVS con los descriptores de salud, en las bases de datos LILACS, MEDLINE y BDENF durante el mes de junio. Se seleccionaron artículos originales completos; en portugués, inglés y español; publicado entre 2017 y 2019. Se utilizó el CASP para analizar la elegibilidad de los estudios, presentándolos en forma de cifras y analizándolos de manera descriptiva. ***Resultados:*** se encontraron 303 artículos y, después de filtrarlos con los criterios de elegibilidad, se seleccionaron siete artículos para esta revisión. ***Conclusión:*** se asegura de que el manejo de la sífilis gestacional se realizó de manera inapropiada en la mayoría de los estudios analizados debido a un diagnóstico y tratamiento tardíos, la no adherencia al tratamiento, por parte de la mujer embarazada y su pareja, un número reducido de consultas prenatales, inseguridad profesional de llevar a cabo los esquemas terapéuticos y los problemas organizacionales de los servicios de salud. Se percibe la necesidad de implementar medidas más efectivas en el contexto profesional y la mejora de los servicios de salud para llevar a cabo la gestión adecuada. ***Descriptores*:** Sífilis; Atención Prenatal; Atención Primaria de Salud; Obstetricia; Enfermería; Atención de Enfermería.

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INTRODUCTION

Syphilis is known to be an infectious disease that has been present in the world for several centuries; the first writings about this pathology in history were made by doctors Marcellus Cumano and Alexandri Benedetto, in 1495, during the Battle of Fornovo,[1] and its etiologic agent is Treponema Pallidum, a spiral bacterium of the spirochete group discovered in 1905 by the Germans Fritz Richard Schaudin and Paul Erich.[2]

It is believed that syphilis is transmitted mainly by sexual intercourse and, due to the spirochete's ability to cross the placental barrier, the fetus can also be affected and acquire congenital syphilis. Thus, it is understood that syphilis can be classified as acquired and congenital, and acquired syphilis can be further divided into primary, secondary, tertiary and latency periods. It is noteworthy that the stages of syphilis are characterized by distinct lesions in organ and tissues and, when treatment is not performed, syphilis becomes chronic.[3]

It is shown, through studies conducted in Shanghai and the United Kingdom, that gestational syphilis can be transmitted to the fetus at any clinical stage and at any time during pregnancy, when not treated or treated inappropriately, with serious consequences for the fetus , such as congenital infection, abortion, stillbirth, premature birth, prematurity and low birth weight. In this sense, it is perceived that it is essential to guarantee accessibility to screening tests as early as possible so that the treatment is carried out in a timely manner in pregnant women with a positive result. It is believed that screening combined with treatment has shown good cost-effectiveness.[4-5]

It is explained that when this infection is diagnosed in any of its phases during pregnancy, post-abortion and puerperium, it is called gestational syphilis and, due to its epidemiological importance, it was instituted in the framework of diseases of compulsory notification by Ordinance n 33, of July 14, 2005.[6]

It was found that the World Health Organization (WHO) has shown great effort in eliminating vertical transmission of syphilis in the world by encouraging countries to adopt greater coverage of maternal and child health services, offering rapid tests, immediate intervention in the face of a positive result and advice from the pregnant woman and her partner during pregnancy.[7]

Note that syphilis, in general, is a public health problem worldwide,[4-5,7] and the data published by the WHO show that, in the period from 2008 to 2012, there was an increase in the number of cases notified by the countries in which 927,936 infected pregnant women were registered, with 350,915 adverse pregnancy results, with the highest number of gestational syphilis cases being registered in Africa and the lowest number of cases in Europe.[7]

It is noteworthy that the number of cases of gestational syphilis has been growing more and more in Brazil. In 2018, a total of 62,599 cases of gestational syphilis were registered in the Information System for Notifiable Diseases (SINAN), with the region with the highest number of reported cases being the Southeast (44.9%) and the region with the lowest number of cases was the Midwest (7.9%).[4] It is stated that, in the previous year, 49,013 cases of gestational syphilis were reported, with the Southeast region also having the highest number of cases (47.9%) and the lowest number of cases recorded in the Midwest region (8%), showing that there was a 25.7% increase in cases compared to 2017.[8]

It should be noted that the increase in the number of notified gestational syphilis cases can be attributed to the change in the definition of cases, which now also considers cases of syphilis in childbirth and the puerperium,[4] in addition to the increase in the offer of rapid tests and the improvement of the surveillance system, however, the number of cases can be underestimated, when considering underreporting in several regions of the country.[8]

It appears that Brazil, in line with the WHO, has been trying to change this epidemiological scenario through the coverage of prenatal care in the territory, which reaches around 90%, aiming to intervene in the chain of vertical transmission in opportune time; the fact is that this strategy has made progress, but social and regional inequalities imply access to health services, interfering in the fight against infection.[9]

It is understood that the prenatal care offered in Primary Care is a set of actions of a clinical and educational nature with the purpose of providing a healthy and safe pregnancy through comprehensive and quality care from its beginning to the end. It is thought that prenatal care should be concerned with reaching pregnant women early, even in the first trimester of pregnancy, providing at least six consultations, diagnosis and treatment.[10]

It is noteworthy that the diagnosis can be made through treponemic and non-treponemic tests. The rapid test (treponemic test) has been used routinely in the first prenatal consultation and in the third trimester of pregnancy, as well as during hospitalization for childbirth or abortion, risk exposure or sexual violence and, regarding treatment, be performed essentially with penicillin with therapeutic regimen according to the clinical stage of the infection.[11]

OBJECTIVE

● To analyze the management of gestational syphilis during prenatal care.

METHOD

It is a bibliographic, descriptive, integrative review type study, covering six stages: problem definition; sampling procedure in the literature; data extraction; detailed analysis of the data; discussion of results and presentation of the review.[12]

The guiding question was defined: "What is the scientific evidence for the management of gestational syphilis during prenatal care?", For this, it was necessary to use the PICO strategy (P = gestational syphilis; I = prenatal care; C = early diagnosis and adequate treatment; O = adequate management).[13]

The articles were searched in July 2019, at the Virtual Health Library (VHL), in databases of Latin American and Caribbean Literature (LILACS), Medical Literature on Line (MEDLINE) and Database in Nursing (BDENF- Nursing), with the combination of Health Science Descriptors and the use of the Boolean DNA among them to define the research (DeCS): "Syphilis" AND "Prenatal Care" AND "Congenital Syphilis".

Inclusion criteria were: original articles available in full; in Portuguese, English and Spanish; published in the period from 2017 to 2019; related to the management of gestational syphilis and free access, excluding dissertations, review studies, articles not available in full, summary and articles that did not address the theme.

A total of 303 articles were found in the advanced search of the VHL, without the inclusion and exclusion criteria, after their insertion, a total of 39 articles were obtained, which were systematically analyzed by means of the theme and the abstract, excluding those that did not embody the management of gestational syphilis and duplicate studies; the remaining articles were read and evaluated more rigorously and those who did not answer the guiding question were excluded, thus ten articles were eligible to compose this review, of these, only seven articles were eligible to compose this review, as only those had more complete information on the topic, as shown in figure 1.

It is stated that the selected studies were assessed for their level of evidence according to the Agency for Healthcare Research and Quality, in which it ranks into six levels: level 1 meta-analysis of multiple controlled studies; level 2 - individual study with experimental design; level 3- study with quasi-experimental design as study without randomization with single group pre and post-test, time series or case-control; level 4- study with non-experimental design as descriptive correlational and qualitative research or case study; level 5- case report or data obtained systematically with verifiable quality or program evaluation data; level 6- opinion of responsible authorities based on clinical competence or opinion.[14]

The eligibility analysis of the selected studies was carried out using the Systematic review adapted from the Critical Appraisal Skills Program (CASP), a critical reading skills program, part of the Public Health Resource Unit (PHRU), developed by the University of Oxford, in 2002. This instrument is used to classify the studies according to the following scores: 6 to 10 points (good methodological quality and reduced bias) and a minimum of 5 points (satisfactory methodological quality, however, with increased risk of bias). It can be seen that the articles in this review have a score of 6 to 10 points.[15]

It is noteworthy that the main information was extracted according to the chronological order, always paying attention to the interpretation of the data in a reliable manner, respecting the concepts presented by the authors, thus, the review and analysis of the data were done in a descriptively. Then, a synoptic figure was constructed that exposes the author, year, country, periodical and type of study; the articles were organized according to the year of publication, from oldest to most current, in order to systematize the integrative review, as shown in figure 2.

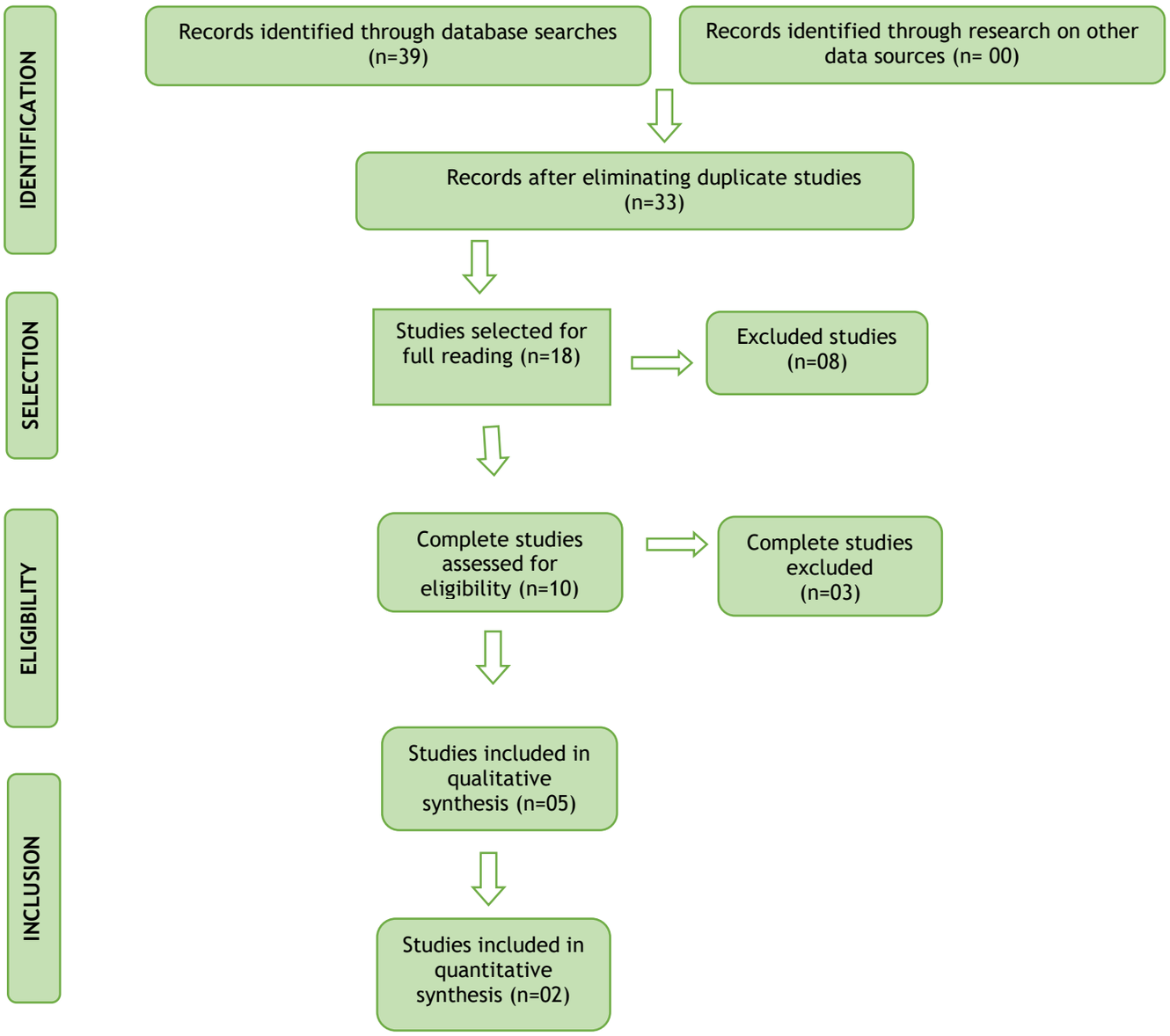

Figure 1. Flowchart of study selection adapted from Preferred Reporting Items for Systematic Reviews and Meta-Analyzes (PRISMA 2009). Paulo Afonso (BA), Brazil, 2019.

RESULTS

Seven articles were obtained to compose this literature review. For the purpose of the analysis of the research design, it is considered that the final sample consists of two (29%) articles with a qualitative approach and five articles (71%) with a quantitative approach; seven (100%) published in Portuguese; six (86%) published in the LILACS database and one (14%) published by BDENF; four (58%) were carried out in the Northeast region; one (14%), in the North region; one (14%) in the South and one (14%) in the Southeast.

Author	Year	Country	Journal	Type of study
Cabral, Dantas, Silva, Oliveira[16]-A1	2017	Brazil	*Plural Science Journal*	Retrospective
Cavalcante, Pereira, Castro [17]- A2	2017	Brazil	Epidemiology and Health Service Journal	Descriptive
Nunes, Marinho, Davim, Silva, Felix, Martino[18]- A3	2017	Brazil	Journal of Nursing UFPE On Line	Qualitative, descriptive-exploratory
Guanabara, Leite-Araújo, Matsue, Barros, Oliveira[19]-A4	2017	Brazil	Public Health Journal	Multiple case studies
Cardoso, Araújo, Cavalcante, Frota, Melo[20]-A5	2018	Brazil	Colective health and science journal	Cross-sectional
Cunha, Biscaro, Madeira [21]-A6	2018	Brazil	Catarinense Medical Archives	Cross-sectional, quantitative
Santos, Alves, Vilano, Borges, Soares, Silveira, et al [22]- A7	2018	Brazil	Clinical and Biomedical Research	Cross-sectional cohort

Figure 2. Author, year, country, journal and type of study. Paulo Afonso (BA), Brazil, 2019.

DISCUSSION

It is understood that syphilis predominated in young pregnant women with low education, a reality also portrayed in the literature[16-7] regarding the appropriate management of gestational syphilis, noting that it was not performed correctly in the analyzed studies.

It is noteworthy that, for the Ministry of Health, the treatment of the pregnant woman is considered adequate when performed with benzathine penicillin, with the beginning of treatment up to 30 days before delivery, a therapeutic scheme according to the clinical stage, respecting the interval between doses, assessment of the risk of infection, documentation of the drop in the non-treponemal test title in at least two dilutions in three months or four dilutions in six months after the completion of the treatment-adequate immune response.[11]

It was revealed, in A1, that many pregnant women still received the treatment of syphilis late, in the puerperium, which leads to the deduction that there was a failure in the early diagnosis and, possibly, it was given during the last days of the prenatal or in the work of delivery. It was also pointed out, also, a lower adherence to the treatment of partners, which implies possible reinfection,[15] however, it is known that the partner's treatment is no longer taken into account when considering appropriate maternal treatment.[8]

At A2, it was observed that the majority of pregnant women had a late diagnosis during prenatal care, in the second and third trimesters of pregnancy, with a predominance of primary and latent syphilis, reactive non-treponemal test and realization of the therapeutic regimen with penicillin inadequate. In view of this situation, the low quality of prenatal care was portrayed, which constitutes a real impasse for the management of pregnant women and the fight against vertical transmission, as many pregnant women received the diagnosis during prenatal care, but did not perform the therapeutic regimen and neither do most partners.[17]

It is shown that, in the scope of Primary Care, professionals who work directly with pregnant women should prioritize strategies to intervene in maternal-fetal transmission by strengthening the link between the health team and the pregnant woman to favor early intervention.[17]

In A6, it was proven that the majority of diagnosed pregnant women had positive syphilis serology, with a high titre> 1: 8, and penicillin was the most used drug in the treatment of infected pregnant women and their partners. It should be noted that adherence to treatment is linked to the greater number of prenatal consultations. It was found that pregnant women who had more than six prenatal consultations had greater adherence to treatment than those who had less than six consultations.[21]

It is evident that the management reported in A2 is similar to that portrayed in A5, in which it appears that most pregnant women had their diagnosis during prenatal care, in the second or third trimester of pregnancy, with a predominance of primary and tertiary classification syphilis and treatment with penicillin, however, this was considered inadequate, demonstrating that prenatal care was not enough to combat congenital syphilis, as many pregnant women had this outcome because the diagnosis was made late, around the second and third trimesters of pregnancy, and treatment with penicillin was not performed or was performed without respecting the dose schedule, not preventing vertical transmission.[17]

In A2, a true care gap was also reported by exposing that many pregnant women who had prenatal care and who had a serological examination with a titre> 1: 8 remained until delivery, that is, they were still infected and had,

as outcome, infected fetuses, reaffirming what the literature reports about how dangerous the consequence to the fetus of an ineffective approach to the management of gestational syphilis.[17]

In A3, it was pointed out that, in the case of conduct, it is essential that the professional is qualified to perform the management correctly, and should prioritize the early capture actions of the high-risk pregnant woman, requesting a VDRL exam to monitor the clinical condition, referral for high-risk prenatal care, guidance for pregnant women and their partners regarding syphilis, treatment, prevention and development of educational activities.[18]

It was observed, in A4, that the compromise in the management of gestational syphilis could be given to organizational issues of the health service in providing continuity of care, as many professionals are overloaded because they are insufficient to meet the population's demand, implying the quality of care and difficulty in meeting the needs of pregnant women, another important point being the difficulty in accessing rapid tests and laboratory exams, since many units lack this service due to lack of investment or these are carried out in other reference places, delaying the result.[19]

It was also portrayed, still in A4, that the lack of support material for urgency in the health unit generates resistance of professionals to perform treatment with penicillin for fear of possible adverse effects.[19] In this sense, it is emphasized that the A3 pointed out other impasses not attributed to professional conduct that may also occur, such as the shortage of penicillin and non-adherence to treatment by the pregnant woman.[18]

It is believed that health services that have adequate infrastructure and properly trained professionals can offer adequate management, as recommended by the Ministry of Health, and in this universe, A7 pointed out in its study, that all pregnant women were treated properly and had declines in VDRL titles. It is understood that these health services are a minority in the country and, therefore, studies with similar results are difficult to find.[22]

It is certain that there is, in the literature, a large number of articles dealing with gestational syphilis as an uncontrolled public health problem, which tends to perpetuate itself in the Brazilian epidemiological scenario if something is not changed to stop the transmission chain, being the poor quality of prenatal care is a strong contributor to the increase in cases. It is pointed out, in this sense, that there is a need to work, since graduation, the importance of early and adequate intervention in vertical transmission diseases.

CONCLUSION

It is concluded that only one study showed the correct management of gestational syphilis because it was performed in a high quality health service, as the other studies analyzed showed that the management of gestational syphilis was performed incorrectly and can be attributed to the late diagnosis which, consequently, postponed the treatment, as well as the non-adherence to the therapeutic scheme by the pregnant woman and her partner, reduced number of prenatal consultations, since the number of consultations can influence treatment adherence, professional resistance in carrying out the treatment and, in addition, the organizational problems of the health services, which directly interfered with the quality of care.

It is understood that there is a need to implement more effective measures to break the chain of transmission of syphilis. For this, professional training is essential for the management of gestational syphilis to be adequate, since prenatal care is a strategic point to act in the fight against syphilis and vertical transmission, therefore, it is necessary that professionals, in the face of this program, they are able to interpret rapid tests and laboratory exams and carry out the treatment of the therapeutic segment and other aspects involved; another fundamental issue is to have a well-structured health service, being as important as having qualified professionals, so it is important that these services can have sufficient conditions to support professional practice through government investments.

In this way, the aim is to contribute so that health professionals understand the dimension of the public health problem that gestational syphilis represents and the impact it can cause on the maternal-fetal binomial so that, thus, they can strengthen their conduct and intervene in this problem.

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