

Nursing assistance in Congenital Syphilis: A bibliographic review

Asistencia de Enfermería en Sífilis Congénita: Una revisión bibliográfica

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Keywords— Women's health,
Syphilis, Nursing care.

Abstract— Syphilis is a sexually transmitted infection caused by *Treponema pallidum* tracked by the VDRL non-treponema test and should be treated as early as possible. The objective of the research is to analyze the role of nurses in assisting patients with congenital syphilis. The methodology is a narrative review study with an exploratory, observational, retrospective study approached in 15 articles in the databases (PUBMED, LILACS, BVS, SciELO, REBEN) between 2010 and 2020. Results: Since pregnant and infected women if their sexual partners are diagnosed during prenatal care and treated in time, congenital syphilis can be prevented. About two-thirds of children living with congenital syphilis are asymptomatic. The diagnosis of these diseases is relatively easy and of low cost, therefore, it should not be an obstacle to promote the early diagnosis of these patients. It can be concluded: The nurse is the professional with prominence in the attendance of the basic health units, because the role is delegated and extremely important in the care and prevention of patients. It is up to the health secretaries to delegate training with nurses in the consultation and treatment of congenital syphilis. More attention should be paid to the role of screening during prenatal care, to carry out the treatment in a qualified manner.

Resumo: A sífilis é uma infecção sexualmente transmissível causada pelo *Treponema pallidum* rastreado pelo teste não treponema do VDRL e deve ser tratado mais precoce possível. O objetivo da pesquisa é analisar o papel do enfermeiro na assistência do paciente com sífilis congênita. A metodologia trata-se de um estudo de revisão narrativa com abordagem de estudos exploratórios, observacionais, retrospectivos pesquisados em 15 artigos nas bases (PUBMED, LILACS, BVS, SciELO, REBEN) entre 2010 a 2020. Resultados: Desde que as gestantes infectadas e seus parceiros sexuais sejam diagnosticados durante o pré-natal e tratados a tempo, a sífilis congênita pode ser prevenida. Cerca de dois terços das crianças vivas com sífilis congênita são assintomáticas. O diagnóstico dessas doenças é relativamente fácil e de baixo custo, portanto, não deve ser um obstáculo para promover o diagnóstico precoce desses pacientes. Conclui-se: O enfermeiro é o profissional com destaque dentro dos atendimentos das unidades básicas de saúde, pois, o papel é delegado e de extrema importância no cuidado e prevenção dos pacientes. Cabe as secretárias de saúde a delegação das capacitações

com os enfermeiros na consulta e tratamento da sífilis congênitas. Deve-se atentar mais ao papel de rastreamento durante o pré-natal, realizar o tratamento de forma qualificada.

Palavras-chave - Saúde da Mulher, Sífilis, Cuidados de Enfermagem.

Resumen: La sífilis es una infección de transmisión sexual causada por *Treponema pallidum* rastreada por la prueba VDRL sin *treponema* y debe tratarse lo antes posible. El objetivo de la investigación es analizar el papel de las enfermeras en la asistencia a los pacientes con sífilis congénita. La metodología es un estudio de revisión narrativa con un estudio exploratorio, observacional, retrospectivo abordado en 15 artículos en las bases de datos (PUBMED, LILACS, BVS, SciELO, REBEN) entre 2010 y 2020. Resultados: Desde mujeres embarazadas e infectadas si sus parejas sexuales son diagnosticadas durante la atención prenatal y tratadas a tiempo, se puede prevenir la sífilis congénita. Aproximadamente dos tercios de los niños que viven con sífilis congénita son asintomáticos. El diagnóstico de estas enfermedades es relativamente fácil y de bajo costo, por lo que no debe ser un obstáculo para promover el diagnóstico precoz de estos pacientes. Se puede concluir: El enfermero es el profesional con protagonismo en la atención de las unidades básicas de salud, porque el rol es delegado y de suma importancia en la atención y prevención de los pacientes. Corresponde a las secretarías de salud delegar la formación con enfermeras en la consulta y tratamiento de la sífilis congénita. Se debe prestar más atención al papel del cribado durante el cuidado prenatal, para realizar el tratamiento de manera calificada.

Palabras-clave— Salud de la mujer, Sífilis, Cuidado de enfermera.

I. INTRODUCTION

In Brazil, the number of reported cases of syphilis in pregnancy is increasing every year. Worldwide, syphilis still affects many pregnant women (DOMINGUES & LEAL, 2016).

Syphilis is a systemic and sexually transmitted infection caused by infection by the Gram-negative bacteria *Treponema pallidum*. Despite the existence of effective and low-cost treatments, it is still a serious public health problem in Brazil. Considering that it is an easy pathology to treat and that other more complex infectious diseases have been controlled (CARVALHO & BRITO, 2014).

The congenital form of syphilis (or congenital syphilis, SC) occurs when *Treponema pallidum* is transmitted by the placenta (or vertically). According to reports, the transmission of CS occurs from an infected mother (untreated or undertreated), and transmission can occur at any stage of pregnancy or during childbirth (CAMPOS et al., 2012).

Estimates of the number of cases of congenital syphilis are even more inaccurate. In the absence of treatment, the rate of vertical transmission of syphilis is high, reaching a value close to 100% in the most recent form of the disease. However, timely diagnosis and treatment are very effective and vertical transmission can be reduced in up to 97% of cases (BLENCOWE et al., 2011).

Congenital syphilis is divided into two periods: early (until the second year of life) and late (appearing

after the second year of life). Most congenital syphilis is asymptomatic (about 70%), but newborns may have premature delivery, light weight, hepatomegaly, splenomegaly, skin lesions (pemphigus syphilis, flat acuminate condyloma, petechiae, purple, cracks around the cheeks), periostitis, osteochondrosis, pseudoparalysis of the limbs, difficulty breathing with or without pneumonia, serum rhinitis, jaundice, anemia, systemic lymphadenopathy, nephrotic syndrome, epilepsy and meningitis, thrombocytopenia, leukocyte decrease or leukopenia. In late congenital syphilis, clinical manifestations are rare and are caused by the cure of an early systemic disease, which can involve multiple organs (ANDRADE et al., 2018; MORAES, D'ALMEIDA & CONDE, 2019).

The legitimacy and relevance of the research, in addition to emphasizing the purpose of comprehensive evidence, which can assist nurses in making decisions about the effective implementation of the tool, promoting the adherence of health professionals and integrating it into practice. This study justifies the dysfunction, which leads to the lack of preventive habits to prevent infectious diseases, highlights the importance of guiding syphilis problems in adolescents, young people and pregnant women and warns that it is a sexually transmitted infection (STI) related to sexually transmitted diseases communicable diseases. And that when diagnosed, your treatment should be as early as possible.

The objective of the research is to analyze the role of nurses in assisting patients with congenital syphilis.

II. MATERIALS AND METHODS

The present work is a narrative review of the literature carried out through a bibliographic review focused on describing the role of nurses in assisting patients with congenital syphilis.

The bibliographic research had the following question: What is the role of nurses in assisting patients with congenital syphilis? Articles that sought to explain the role of the nurse in assisting the patient with congenital syphilis from scientific articles in Portuguese, English and Spanish were selected. The translator available on the website <https://www.translate.google.com/> was used to translate the articles into another language. [translate.google.com/](https://www.translate.google.com/).

The organization of this review took place between the months of June and December 2020, thus providing guidance for researchers in relation to the subject addressed, so that they can formulate hypotheses in an attempt to solve frequent problems related to the assistance provided in previous studies.

For data collection, the bases (PUBMED, LILACS, BVS, SciELO, REBEN) were used, searching for keywords such as: Women's Health; Syphilis; Nursing care. 15 scientific articles containing publications between the years 2010 and 2020 were analyzed, which dealt with the chosen theme.

III. RESULTS AND DISCUSSION

The nurse is one of the most important primary care professionals. Your participation is not only essential for disease prevention, but also for the comfort provided to children and their families during treatment - this can be a factor in determining clinical outcomes. Nursing starts even before delivery, when the nurse must guide the pregnant woman about the characteristics of this phase to ensure safety and tranquility during pregnancy. Topics covered include methods to prevent sexually transmitted infections (SECAD, 2019).

As long as infected pregnant women and their sexual partners are diagnosed during prenatal care and treated in time, congenital syphilis can be prevented. It is worth mentioning that despite the increase in prenatal coverage, the effectiveness of the operation is still low and the average number of cases in the period proves preventive measures in Brazil (ARAÚJO et al., 2012; NONATO, MELO & GUIMARÃES, 2013).

It is suggested that the reduction of SC infection is related to the implementation of anti-syphilis policies. Obviously, examples of policies include an increase in the number of rapid tests that track cases and several itinerant operations aimed at fighting the disease to allow early

diagnosis and treatment (SILVA et al., 2019). Congenital syphilis can cause, miscarriage during pregnancy, fetal and neonatal death, premature birth and harm the health of newborns through psychological and social influences. It is estimated that 40% of pregnant women with untreated syphilis will develop fetal abortion (GASTALDI, FREITAS & MENDONÇA, 2016; SILVA et al., 2019).

Currently, the Ministry of Health proposes for professionals in the basic network to request at least two serological tests for syphilis. According to the determination of the performance of prenatal care in the public health system, in addition to the delivery examination, the non-treponemal examination (VDRL) should be performed in the first and third trimester of pregnancy (TAVARES et al., 2012).

About two-thirds of children living with congenital syphilis are asymptomatic. The diagnosis of these diseases is relatively easy and of low cost, therefore, it should not be an obstacle for nurses to promote the early diagnosis of these patients (GASTALDI, FREITAS & MENDONÇA, 2016).

You can see the incidence of syphilis from 2010 to 2019. During this period, the incidence of congenital syphilis reached 9.0 cases per thousand live births in 2018, increasing to 8 cases. There are 2 cases per 1,000 live births in 2019. The rate of syphilis detection in pregnant women reached 21.5 cases per 1000 live births in 2018 and dropped to 20.8 cases per 1000 live births in 2019. Although there was a drop in cases of syphilis in almost the whole country, it is important to highlight that part of this fall may be related to the identification of data transfer problems between SUS management areas, which can lead to SUS, municipal, state and federal syphilis databases (BRASIL, 2020).

Between 2007 and 2016, the city of Cacoal-RO reported 20 cases of congenital syphilis. Among the reported cases, the incidence was higher in 2007, 2015 and 2016, and in the year of 2016 (MAEDA et al., 2016). Symptoms may appear soon after birth, in the first two years after the child's birth, or afterwards. The largest appear in the first two stages of the disease, when it is most contagious. Symptoms may or may not appear in the third stage, giving the wrong impression of a cure (BRASIL, 2019).

Prenatal care is the responsibility of the nurse at the basic health unit, and when pregnant women test positive for syphilis, it is up to them to start treatment with benzathine penicillin as soon as possible as recommended by the Ministry of Health. Sexual partners should also be tested and treated to prevent pregnant women from being infected again. Adequate treatment is for pregnant women,

benzathine penicillin is administered, treatment is started 30 days before delivery and the treatment plan is formulated according to the clinical stage of syphilis and the recommended interval between two to three doses is respected (OLIVEIRA, 2011 ; BRASIL et al., 2019).

The nurse must pay attention to treatment with any medication other than penicillin; incomplete treatment; less time than recommended; error due to insufficient clinical stage of the disease; performed within 30 days before birth; without previous treatment documents; after the correct treatment, the titer does not decrease; untreated partner, inappropriate treatment or no information (BRASIL, 2016).

All confirmed or suspected NB infections must be treated and monitored properly. Crystalline penicillin is the drug of choice and 50,000 IU / kg / dose should be taken, 12/12 in the 1st week; and 8 / 8h, after 7 days. If normal cerebrospinal fluid is checked, procaine penicillin can be used 50,000 IU / kg / dose, single daily dose, 10 days. As this medication has a low permeability to cerebrospinal fluid, benzathine penicillin is used in cases where the infection is unlikely at a dose of 50,000UI / kg / day, single dose (FEITOSA, ROCHA & COSTA, 2016; EBSERH, 2019).

If treatment is interrupted for more than 24 hours, treatment must be restarted. After starting penicillin treatment, standard exposure precautions for up to 24 hours should be developed for all cases of congenital syphilis. It is up to the nurse to carry out the monitoring of every newborn with a mother with syphilis must be followed for at least two years. The non-treponeme test (VDRL) should be performed at 1, 3, 6, 12 and 18 months of age until two consecutive negative results occur at least 30 days apart (FEITOSA, ROCHA & COSTA, 2016; SBP, 2016).

The role of nurses in the development of strategies for the prevention of congenital syphilis is extremely important, including guidance on condom use, reduction in the number of sexual partners, nursing consultations with help and guidance, early diagnosis, treatment of patients and search for preventive measures to reduce the rates. Drug users and other preventive measures to improve quality of life. Pregnant and congenital women with syphilis must be notified for epidemiological surveillance, and the form must be completed and sent to the epidemiological surveillance service. This warning is very important to control the case (RAMPAZIO, SOUZA & CARVALHO, 2019).

IV. CONCLUSION

The nurse is and always will be a professional with prominence in the attendance of basic health units, because the role that is delegated to him and of extreme importance in the care and prevention of patients. It is up to the health secretaries to delegate training to nurses working in the consultation and treatment of congenital syphilis.

Carry out, in partnership with the local population, orientation campaigns regarding the disease, and seek to resolve all doubts and curiosity, providing guidance on the use of condoms and seeking care in case of presenting any symptoms.

The nurse must pay more attention to the role of screening during prenatal care, carry out the treatment in a qualified and correct way both from the partner to avoid recontamination and from the pregnant woman to avoid aggravating the case.

REFERENCES

- [1] ANDRADE ALMB; MAGALHÃES PVVS; MORAES MM; TRESOLDI AT; PEREIRA RM. Diagnóstico tardio de sífilis congênita: Uma realidade na atenção à saúde da mulher e da criança no Brasil. *Rev Paul Pediatr.* 2018;36(3):376-381. Disponível: <https://www.scielo.br/pdf/rpp/v36n3/0103-0582-rpp-2018-36-3-00011.pdf>
- [2] ARAÚJO CL, SHIMIZU HE, SOUSA AIA, HAMANN EM. Incidence of congenital syphilis in Brazil and its relationship with the Family Health Strategy. *Rev Saúde Pública.* 2012 June;46(3):479–86. Doi: <http://dx.doi.org/10.1590/S0034-89102012000300010>
- [3] BLENCOWE H, COUSENS S, KAMB M, BERMAN S, LAWN JE. Lives saved tool supplement detection and treatment of syphilis in pregnancy to reduce syphilis related stillbirths and neonatal mortality. *BMC Public Health* 2011; 11 Suppl 3:S9
- [4] BRASIL, Ministério da Saúde. Boletim epidemiológico. Sífilis. Brasília, 2020. Disponível: <https://www.gov.br/saude/pt-br/media/pdf/2020/outubro/29/BoletimSfilis2020especial.pdf>
- [5] BRASIL, Ministério da Saúde. Diretrizes para o controle de sífilis congênita: manual de bolso. [acesso em 06 de mar 2016]. Disponível em: <http://www.aids.gov.br/publicacao/2006/diretrizes-para-o-controle-da-sifilis-congenitamanoal-de-bolso>.
- [6] BRASIL. MINISTÉRIO DA SAÚDE. Doenças de Condições Crônicas e Infecções Sexualmente transmissíveis. Disponível em: <http://www.aids.gov.br/pt-br/publico-geral/oque-sao-ist/sifilis>. Acesso em: 15 ago. 2019.
- [7] CAMPOS ALA, ARAÚJO MAL, MELO SP, ANDRADE RFV, GONÇALVES MLC. Syphilis in parturients: aspects

- related to the sex partner. *Rev Bras Ginecol Obstet.* 2012 Sept;34(9):397–402. Doi: <http://dx.doi.org/10.1590/S0100-72032012000900002>
- [8] CARVALHO IS, BRITO RS. Congenital syphilis in the state of Rio Grande do Norte: a descriptive study in the period 2007-2010. *Epidemiol Serv Saúde.* 2014 June;23(2):287– 94. Doi: <http://dx.doi.org/10.5123/S1679-49742014000200010>
- [9] DOMINGUES, Rosa Maria Soares Madeira; LEAL, Maria do Carmo. Incidência de sífilis congênita e fatores associados à transmissão vertical da sífilis: dados do estudo Nascer no Brasil. *Cad. Saúde Pública, Rio de Janeiro*, v. 32, n. 6, e00082415, 2016. Disponível em <http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-311X2016000605002&lng=pt&nrm=iso>. acessos em 09 dez. 2020. Epub 01-Jun-2016. <https://doi.org/10.1590/0102-311X00082415>.
- [10] EBSERH. Sífilis Congênita. Brasília, 2019. Disponível: www2.ebserh.gov.br/documents/214336/1108363/Capítulo-26-Sífilis-Congênita.pdf/be737e6-8de3-4ff0-ba95-4f1aa8d52853
- [11] FEITOSA JAS; ROCHA CHR; COSTA FS. Artigo de Revisão: Sífilis congênita. 2238-5339 © Rev Med Saude Brasilia 2016; 5(2): 286-97
- [12] GASTALDI FM; FREITAS EAM; MENDONÇA GS. Perfil das complicações das infecções sexualmente transmissíveis durante a gestação. In: *Anais do IX Fórum Mineiro de Enfermagem – Horizonte Científico - ISSN 1808-3064 - 2016 – Uberlândia/MG.* Disponível:
- [13] MAEDA ATN; ERMITA LB; ALVES WC; RODRIGUES AM. Perfil clínico e epidemiológico das gestantes com sífilis e sífilis congênita no município de Cacoal, Rondônia, 2007 a 2016. *Revista Eletrônica FACIMEDIT*, v7, n1, Jul/Ago 2018 ISSN 1982-5285 – Artigo original
- [14] MORAES LS, D'ALMEIDA MVM, CONDE MR. Sífilis congênita precoce e falso-negativo por Fenômeno Prozona. *Resid Pediatr.* 2019;9(3):341-343 DOI: 10.25060/residpediatr-2019.v9n3-31
- [15] NONATO SM, MELO APS, GUIMARÃES MDC. Syphilis in pregnancy and factors associated with congenital syphilis in Belo Horizonte-MG, Brazil, 2010-2013. *Epidemiol Serv Saúde.* 2015 Oct;24(4):681–94. Doi: <http://dx.doi.org/10.5123/S1679-49742015000400010>.
- [16] OLIVEIRA, FIGUEIREDO. 2011. Assistência do Enfermeiro no Tratamento da Sífilis. Disponível em: <https://www.nucleodoconhecimento.com.br/saude/assistencia-do-enfermeiro>. Acesso em: 15 ago. 2019.
- [17] RAMPAZIO IT; SOUZA IEB; CARVALHO ACG. A atuação da enfermagem na prevenção e no tratamento da sífilis congênita. *Revista Interdisciplinar do Pensamento Científico.* ISSN: 2446-6778 Nº 5, volume 5, artigo nº 03, Julho/Dezembro 2019 Disponível: D.O.I: <http://dx.doi.org/10.20951/2446-6778/v5n5a3>
- [18] SBP, Sociedade Brasileira de Pediatria. Critérios Diagnósticos e tratamento da sífilis congênita. [acesso em 06 de mar 2016]. Disponível em: http://www.sbp.com.br/pdfs/tratamento_sifilis.pdf.
- [19] SECAD. Sífilis congênita é tema em novo ciclo do PROENF Saúde da Criança e do Adolescente. São Paulo, 2019. Disponível: <https://secad.artmed.com.br/blog/enfermagem/sifilis-congenita-proenf-sca/>
- [20] SILVA IMD; LEAL EMM; PACHECO HF; SOUZA-JÚNIOR; SILVA FS. Perfil epidemiológico da sífilis congênita. *Rev enferm UFPE on line.*, Recife, 13(3):604-13, mar., 2019.
- [21] TAVARES, L. H. L. C.; et. al.. Monitoramento das ações pró-redução da transmissão vertical da sífilis na rede pública do Distrito Federal. *Enfermagem em Foco*, Brasília, v. 1, n. 3, p.29-35, fev. 2012.