

PREVALENCE OF CONGENITAL SYPHILIS AND ITS CONSEQUENCES IN NEWBORN IN THE MUNICIPALITY OF ANÁPOLIS FROM 2013 TO 2022

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ABSTRACT

Introduction: Sexually transmitted infections (STIs) are a serious public health problem in Brazil, with syphilis standing out. Syphilis is transmitted mainly through sexual contact and vertically from the mother to the fetus, leading to Congenital Syphilis (CS). **Objective:** This study aims to investigate the prevalence of CS in the municipality of Anápolis from 2013 to 2022. **Methodology:** This is an observational and cross-sectional analytical study. Articles were retrieved from the Medline, PubMed, and Virtual Health Library (BVS) databases using the descriptors “Congenital Syphilis”, “Newborn”, “Prenatal”, and “Primary Care”. A literature review was conducted using articles published from 2018 onwards containing the descriptors, excluding those that did not meet these criteria. The data obtained on the prevalence of congenital syphilis and prenatal care for mothers during pregnancy in the municipality of Anápolis from 2013 to 2022 were analyzed in comparison with the existing literature. **Results:** The study highlights the variability in cases of newborns under 6 days old, indicating differences in prevention and diagnostic efforts. Thus, prenatal care coverage within primary care increased from 2013 to 2022. **Conclusion:** The increase in syphilis diagnoses in newborns under six days old indicates advances in early detection but reveals the need to improve diagnosis and professional training. Despite the increase in prenatal diagnosis, gaps in follow-up persist, making it essential to strengthen primary care and improve surveillance.

Keywords: “Congenital syphilis”; “Newborn”; “Prenatal”; “Primary care”.

INTRODUCTION

Sexually transmitted infections (STIs) are a persistent public health problem in Brazil, with high prevalence and transmissibility, as evidenced by the Ministry of Health's 2022 Epidemiological Bulletin on STIs. Among them, syphilis stands out, characterized by a high transmission rate and difficulties in primary prevention (PASTRO *et al.*, 2019; DE MORAIS *et al.*, 2022). The infection is transmitted mainly through sexual contact but can also occur vertically, passing from the mother to the fetus during pregnancy or childbirth, leading to CS (Congenital Syphilis) (PASTRO *et al.*, 2019; CAVALCANTE *et al.*, 2019).

Thus, this study aims to investigate the prevalence of CS in the municipality of Anápolis from 2013 to 2022, analyzing factors that hinder early screening, notification, and treatment methods and outcomes of the infection in newborns.

METHODS

This research is an observational and analytical cross-sectional study. A literature review was conducted using articles retrieved from the Medline, PubMed, and Virtual Health Library (BVS) databases, using the following descriptors according to the Health Sciences Descriptors (DeCS): 'Congenital Syphilis,' 'Newborn,' 'Prenatal,' and 'Primary Care,' which served as inclusion criteria for this research. The exclusion criteria included studies that did not address Congenital Syphilis and those published before 2018. An analysis of epidemiological data was also performed, using the Notification Form from the Information System for Notifiable Diseases (SINAN), in order to assess the prevalence of the disease and the quality of prenatal care for pregnant women during the study period.

RESULTS

Thus, based on the data in Table 1 below, it is notable that the highest prevalence occurs in neonates under 6 days of age, classified as recent syphilis, mainly in the year 2022. The lowest number recorded within this age group and classification was in 2020, with 18 cases, which was also the only year to register the final classification of stillbirth/abortion, with 4 cases.

Table 1. Congenital syphilis by age and final classification of the conceptus in the municipality of Anápolis from 2013 to 2022.

YEAR	AGE GROUP	FINAL CLASSIFICATION OF THE CONCEPT			
		RECENT SYPHILIS	LATE SYPHILIS	STILLBIRTH/ ABORTION	DISCHARGED
2013	Less than 6 days	24	0	0	0
	28 days to 11 months	1	0	0	0
2014	Under 6 days	32	0	0	0
2015	Under 6 days	12	0	0	1
2016	Under 6 days	29	0	0	0
	7 to 27 days	1	0	0	0
2017	Under 6 days	26	0	0	7
2018	Under 6 days	47	0	4	5
2019	Under 6 days	5	0	0	0
	7 to 27 days	1	0	0	0
	28 days to 11 months	1	0	0	0
2020	Under 6 days	18	0	0	1
	28 days to 11 months	1	0	0	0
2021	Under 6 days	30	0	0	0

	28 days to 11 months	1	0	0	0
2022	Under 6 days	5	0	0	0

Source: Ministry of Health/SVS - Notifiable Diseases System - SINAN NET (2024)

Furthermore, it can be seen that the age group from 28 days to 11 months was the second most prevalent, with one case in 2013, 2019, 2020, and 2021, with the same classification of recent syphilis. This was followed by the 7 to 27-day age group, with cases only in 2016 and 2019. Finally, it should be noted that discarded cases were found only in 2015, 2017, 2018, and 2020. The age group from 12 to 23 months was also analyzed, but no cases were identified.

Thus, when analyzing Table 2 below, it can be seen that 295 women underwent prenatal care, with the highest rates in 2018, 2019, and 2022. Among these, 235 were diagnosed with syphilis early, mainly in 2018 and 2022, with 42 and 41 mothers diagnosed during prenatal care, respectively.

Table 2. Relationship between prenatal care and maternal diagnosis of CS in the municipality of Anápolis, from 2013 to 2022.

YEAR	MOTHER UNDERWENT PRENATAL CARE			MATERNAL AGE AT DIAGNOSIS				
	YES	NO	IGNOR ED IGNOR ED	DURING PRE-BIRTH	DELIVE RY/ CURE BIRTH	AFTER CHILDBI RTH	NOT PERFORMED	IGNORE D
2013	18	7	-	12	5	5	1	2
2014	30	2	-	24	8	-	-	-
2015	11	2	-	5	7	1	-	-
2016	23	9	1	19	4	9	1	-
2017	24	4	2	20	6	3	-	1
2018	51	9	1	42	19	-	-	-
2019	39	4	4	35	12	-	-	-
2020	19	-	1	16	-	3	-	1
2021	30	1	-	20	9	2	-	-
2022	50	5	-	41	8	5	1	-
TOTAL	295	43	9	234	78	28	3	4

Source: Ministry of Health/ SVS - Notifiable Diseases System - SINAN NET (2024)

On the other hand, it is also important to highlight the negative results found, especially in 2015, with a low rate of prenatal care (11), as well as in 2018 and 2019, when diagnoses were made later, resulting in worse prognoses for newborns.

CONCLUSION

The investigation of the prevalence of congenital syphilis in the municipality of Anápolis, from 2013 to 2022, highlighted improvements in early detection, with a significant increase in syphilis diagnoses in newborns less than six days old. However, the presence of discarded cases and stillbirths in some years suggests the need to improve diagnostic standards and the training of health professionals.

It should be noted that early maternal diagnosis is crucial to reduce vertical transmission and improve the prognosis of newborns. Most cases of maternal syphilis were diagnosed during prenatal care, with an increase from 12 cases in 2013 to 41 in 2022. However, the low prevalence of prenatal diagnoses in the period from 2013 to 2017 and 2020 to 2021 indicates possible underreporting.

Finally, the survey revealed that many cases were identified during childbirth and postpartum, pointing to failures in prenatal care. Although coverage of pregnant women has increased, the quality of care remains deficient, as evidenced by the final classification of the newborn outcome. To improve the situation, it is essential to strengthen primary care, train health professionals, improve epidemiological surveillance, and ensure rigorous monitoring of affected newborns.

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