

IMPACT OF THE PANDEMIC BY SARS-CoV-2 ON THE DIAGNOSIS OF LEVERAGE IN THE MUNICIPALITY OF ARAGUAÍNA-TO BETWEEN 2017-2021

Kleyanna Pimentel Araujo Sousa Teixeira

Centro Universitário Presidente Antônio
Carlos (UNITPAC)

Araguaína – Tocantins

<http://lattes.cnpq.br/3205757238464251>

João Victor do Couto

Centro Universitário Presidente Antônio
Carlos (UNITPAC)

Araguaína – Tocantins

<http://lattes.cnpq.br/7309954693421550>

Rodolfo Lima Araújo

Centro Universitário Presidente Antônio
Carlos (UNITPAC)

Araguaína – Tocantins

<http://lattes.cnpq.br/7033526706326987>

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Abstract: Leprosy is an infectious disease caused by *Mycobacterium leprae*. In 2016, there were more than 210,000 new cases of this pathology registered worldwide, with Brazil, in the Americas, largely responsible for this significant portion of diagnoses. Among the Brazilian states, Tocantins is the most hyperendemic state in the northern region. Despite the intensification of combat campaigns in recent years, this disease still persists as a public health problem. This study aims to analyze the number of new cases of leprosy from 2017 to 2021 in the municipality of Araguaína-TO. Data were obtained through the Notifiable Diseases Information System - SINAN, annual leprosy data were collected, together with searches in databases such as Medical Literature Online - MEDLINE and Scientific Electronic Library Online - SciELO. Information regarding an interval of 5 years was analyzed, and 728 notifications were found, among which there were new diagnoses between the age group from 0 to 14 years, which indicates an active transmission of this pathology, since new diagnoses in children under 15 years signal recent outbreaks of human-to-human transmission. From the data obtained, the importance of implementing more effective measures to control leprosy can be observed, since the municipality still has high diagnostic rates for this disease. Basic hygiene and sanitation measures are forms of health promotion that must be vigorously encouraged. In addition, it is important to observe the downward trend in these cases in the years that will follow the end of the SARS-CoV-2 pandemic, so that it is possible to elucidate with greater certainty the reason for this decline in diagnoses.

Keywords: Leprosy, Tocantins, Campaigns.

INTRODUCTION

Leprosy is a chronic infectious disease caused by the pathogen: *Mycobacterium*

leprae, an obligate intracellular bacterium. This disease commonly affects epithelial tissue, peripheral nerve endings, the mucous membranes of the upper respiratory system, and the eyes. Because it is a debilitating disease, the beings affected by it suffer the weight of judgment from the eyes of others due to the stigma associated with this illness since its discovery.

In the beginning, this pathology, because it was infectious, affected a large portion of the population around the world, and due to the fear of contamination, those who acquired this stigma were discriminated against, received pejorative terms such as “lepers”, “leprosariums”, as well as were associated with sinful beings. Added to this, the fact that, in most cases, the disease affects people from the most disadvantaged social classes due to precarious hygiene, this archaic and stigmatized thinking has been going through the centuries and embarrassing many patients over time.

Currently, despite advances in medicine and the improvement of existing pharmacological treatments, this disease still persists as a public health problem due to the high rate of diagnoses, an example of this reality is visible in the North region of Brazil. It must also be added that even with the adjustments of thought over the years and the decrease in discrimination of those affected by leprosy, some cultures still insist on relating this to something negative, which possibly leads to the delay in seeking help and the slowing down. from diagnosis to stages when the disease is already more debilitating.

Still with regard to the chronology of leprosy in Brazilian territory, it is known that the first reports of this disease were observed in the 19th century, but control measures were only instituted almost a century later in the government of Dom João VI.

Furthermore, it is known that leprosy became a notifiable disease throughout Brazil in the mid-twentieth century, when Osvaldo Cruz was Director General of Public Health.

Over the years, many projects have been developed in order to give more emphasis to this pathology, avoiding its stigmatization and aiming at its control, an example of this was Decree 165 of May 14, 1976, which replaced the term “leprosy” with leprosy. Currently, in the 21st century, the Ministry of Health annually publishes epidemiological bulletins and guidelines about this disease in order to better inform health professionals and the population.

In this context, the present study aimed to analyze the influence of the SARS-CoV-2 pandemic on the notification of diagnoses of new cases of leprosy in the municipality of Araguaína - TO.

METHODS

This work is an epidemiological, descriptive study, based on data from the Information System of Notifiable Diseases - SINAN, of the Ministry of Health, based on compulsory notification forms, containing sociodemographic and clinical information, which are filled in by health professionals.

The population studied refers to the citizens of the municipality of Araguaína, located in the State of Tocantins, North region of Brazil. Based on SINAN data, collected in February 2022, all new cases of leprosy in the state of Tocantins in the period from 2017 to 2021 were included in the survey.

For the analysis of notifications, variables related to the frequency of case records per year were selected. Initially, the data related to the municipality of Araguaína in the years 2017 to 2021 were collected referring to all categories of sex, month of diagnosis, schooling, race, age group, reported clinical form, skin lesions, reactional episode,

therapeutic regimen, operational class, disability assessment, number of doses and current municipality. From these data, a table was generated containing all new leprosy cases reported within these variables.

Subsequently, the same variables restricted to the age group from 0 to 14 years were analyzed, thus allowing the observation of the rate of active transmission of the disease, which promotes the understanding of the trend of new cases of leprosy in the municipality of Araguaína in this period.

RESULTS

When analyzing the information referring to an interval of 5 years, it was observed that in 2017, 183 new cases of leprosy were registered, 18 of them in the age group from 0 to 14 years; in 2018, there were 186 new diagnoses, of which 14 are present between 0 and 14 years of age; in 2019, 181 cases were found, 7 of which were related to the age group from 0 to 14 years old; in 2020 they computed 108 cases, of which 3 were between 0 to 14 years old, and in 2021 they recorded 68 new cases, 1 of them between 0 to 14 years old.

Of the 728 new diagnoses found in the municipality of Araguaína, 357 were identified in the Basic Health Units (UBSs).

Year	Age group – all categories
2017	183
2018	186
2019	181
2020	108
2021	68

Table 1 - Number of new leprosy cases in all age groups.

Year	Age range - 0 to 14 years
2017	18
2018	14
2019	7
2020	3
2021	1

Table 2 - Number of new cases of leprosy in the age group from 0 to 14 years old.

DISCUSSION

Through the information exposed, it was observed that between the years 2017 to 2019 there was the highest number of people infected with leprosy, as well as a greater number of new cases in the age group from 0 to 14 years.

In addition, during these years, the detection of new cases of leprosy in the age group from 0 to 14 years old indicates an active transmission of this pathology, since new diagnoses in children under 15 years old indicate recent outbreaks of transmission among a population.

In this context, this increase can be justified by the intensification of campaigns to combat this pathology, especially in the UBSs, since the population that receives more information about a disease more easily seeks a health unit when recognizing the first signs of the disease.

On the other hand, after the beginning of the pandemic caused by SARS-CoV-2, a significant reduction in the notifications of new cases of leprosy was evidenced, this decrease can be explained by the population's concern about exposure and the risk of contagion by the virus, the which would promote a lower demand for health facilities due to the fear of contracting COVID-19.

CONCLUSION

According to the data presented, it is necessary to implement more effective measures to control leprosy, since the municipality still has high diagnostic rates for this disease. In this scenario, basic hygiene and sanitation measures are forms of health promotion that must be vigorously encouraged.

In addition, it is important to observe the downward trend in these cases in the years that will follow the end of the SARS-CoV-2 pandemic, so that it is possible to elucidate with greater certainty the reason for this decline in diagnoses, given that in the years that preceded the beginning of the pandemic by COVID, the number of new cases of this pathology were increasing and quite relevant, however, with the pandemic notifications reduced significantly, leaving a gap that must be better studied, in order to understand more assertively about this notification decay.

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