INCIDENCE RATES OF LEPROSY IN ANÁPOLIS – GOIÁS AND GEO-REFERENCING OF CASES

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ABSTRACT

Leprosy is a chronic and infectious-contagious disease identified in the 19th century by Gehard Hansen. In Anápolis, Goiás, the prevalence of the disease has been high, with the city showing rates above the national average between 2007 and 2010. This work aims to correlate the incidence rates of Leprosy provided by the Municipal Health Department of Anápolis with the neighborhoods of Anápolis to produce geo-referencing. The study indicated that Anápolis has several neighborhoods with continuous cases of Leprosy. The research analyzed data from 2019 to 2024, revealing that the disease still affects multiple neighborhoods, including the Bairro de Lourdes and Jundiaí, although detailed geo-referencing was not possible. The study underscores the need for greater awareness and improvement of health policies to address Leprosy in Anápolis.

Keywords: Leprosy; Geo-referencing; Hansen's Disease

INTRODUCTION

Leprosy is the name given to the chronic and infectious-contagious disease characterized by the social stigma linked to its manifestation. It was only in the 19th century, when the Norwegian physician Gehard Hansen identified the etiological agent of Leprosy, *Mycobacterium leprae*, that studies related to Leprosy began to advance in all aspects (VELOSO et al., 2018).

It is known that if inadequately treated, Leprosy almost always progresses slowly to severe and even disabling manifestations, such as neuritis, plantar ulcers, and amputation. Thus, the early diagnosis of this pathology through anamnesis, clinical examination, and complementary tests, as well as the dissemination of knowledge by health professionals aiming to reduce the stigma associated with Leprosy, become imperative for combating this disease (BOIGNY et al., 2019).

In this context, it was observed that the city of Anápolis reported 3.53 cases of Leprosy per 10,000 inhabitants in 2007 and 3.19 cases per 10,000 inhabitants in 2010, demonstrating rates above the Brazilian average for the respective years. Due to the scarce literary basis addressing the city of Anápolis, Goiás, detailed research

of the city is necessary to identify specific transmission localities and, consequently, carry out targeted actions for source cases (PEREIRA et al., 2015).

Delving a bit deeper into the work, geo-referencing makes it possible to understand the distinct realities of micro-areas during the appropriation of the territory, for the purpose of planning and managing the health services offered to the population, adjusted to their reality. This can assist managers and health teams in managing territorial data and planning health actions, as it allows for constant updates of data, in addition to enabling the manipulation and analysis of the generated information (MULLER, et al., 2010).

Thus, this work aims to correlate the incidence rates of Leprosy provided by the Municipal Health Department of Anápolis with the neighborhoods of Anápolis to produce geo-referencing.

METHODOLOGY

This is a quantitative, descriptive, observational, and cross-sectional study, in which field research and data collection were carried out in the city of Anápolis, at its Municipal Health Department, in the Dr. Ilion Fleury Jr. health unit, a reference unit in areas such as viral hepatitis and leprosy. The data were made available through official letter n° 121/2024 -- SEMUSA/ DIVIG/ GEEPI.

The researched participants were the records registered in the Sexually Transmitted Infections program of the Dr. Ilion Fleury Jr. health unit from 2019 until the 1st semester of 2024, and records of patients with incomplete information on sex, age group, residential address, and marital status were excluded; in addition to records outside the study's data collection period (2019-2024). The research included the analysis of records of individuals of both sexes, without any distinction of race, color, education, or sexual orientation, and also addressed sociodemographic information (sex, age group, residential address, and marital status).

To guarantee ethical aspects, the records were evaluated only within the unit, in a space reserved for this purpose, by those responsible for the project, protecting

the participants' data. The research was submitted and approved by the ethics committee on July 14, 2024, with CAAE 79490824.0.0000.5076 and has opinion number 6,947,882.

The present study sought to bring current data regarding the geo-referencing of leprosy infection in the city of Anápolis-Goiás. However, difficulties were encountered regarding the quality of the data and detailed statistical analysis.

Therefore, the limitations of the study include the lack of updating of the SUS database systems, in addition to the inconsistency of the data that were found. In another aspect, the research covers only the region of Anápolis, which allows conclusions only for this city.

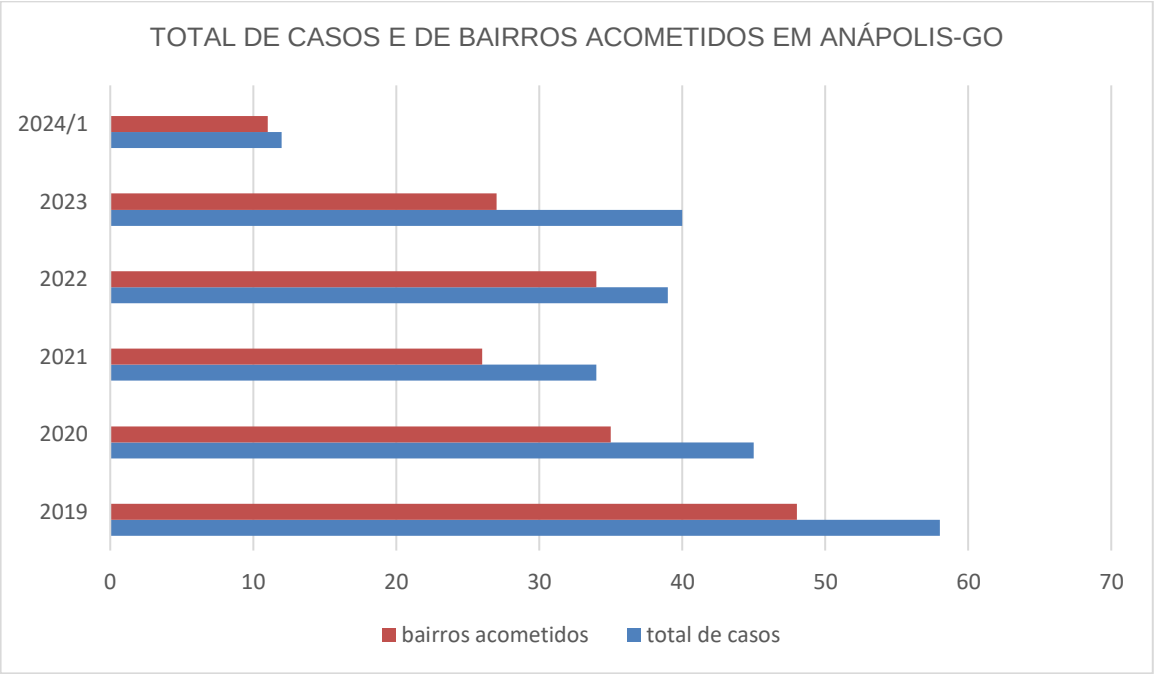
RESULTS

From the data in the records of patients with leprosy who are registered at the Dr. Ilion Fleuri Jr. health unit in the period 2019-2024, it was possible to find the neighborhoods where patients affected by the disease reside and bring a kind of geo-referencing. However, there was a limitation in the database, where the number of cases that occurred in each neighborhood was not indicated, and there was no possibility of cross-referencing the data.

Thus, to have a more opportune geo-referencing for the primary health care network of Anápolis, this study separated the most affected neighborhoods. It was seen in this study that the neighborhoods that had occurrences of Leprosy cases throughout 2019 and 2024 were diverse, but those that had cases occurring in more years were the following: Bairro de Lourdes, Conjunto Filostro, Interlândia, Jundiaí, Vila São Joaquim and Parque dos Pirineus.

We also know that there were 58 cases in 2019, 45 in 2020, 34 in 2021, 39 in 2022, 40 in 2023, and 12 in 2024/1, totaling 228 cases notified on the Sinan NET platform. Furthermore, 48 neighborhoods were affected in 2019, 35 in 2020, 26 in 2021, 34 in 2022, 27 in 2023, and 11 in 2024/1. This information can be visualized in Table 1.

Table 1. Number of registered cases per study year (2019-2024/1)



Source: author

Conclusion

Therefore, it was seen that Anápolis still indeed has many cases of Leprosy being notified and many neighborhoods affected by the disease, which demands professional preparedness in all health areas of the city.

This study, even without achieving a geo-referencing that allows visualizing the neighborhoods with the most cases, managed to demonstrate the need to expand the population's knowledge regarding Leprosy and the importance of adequate treatment of the disease.

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