

Clinical and sociodemographic profile of leprosy in children under 15 with grade II physical disability

Perfil clínico e sociodemográfico da hanseníase em menores de 15 anos com grau II de incapacidade física

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ABSTRACT

Objective: To describe the clinical and sociodemographic profile of leprosy in children under 15 years of age with grade II physical disability. **Methodology:** This is a descriptive study with a quantitative approach, analyzing data from people affected by leprosy with grade II physical disability from 2018 to 2021 in the state of Maranhão, Brazil. **Results:** Thirty-three cases of leprosy in children under 15 years old already classified with grade II physical disability were analyzed. The year with the highest frequency of cases was 2018, corresponding to 36.37% of the cases, while 2020 was the year with the fewest recorded cases. The cases were predominantly male, corresponding to 72.73%, with ages between 13 and 15 years (45.46%). The most reported skin color was brown, accounting for 54.55% of the cases, and 87.88% had incomplete elementary education. The clinical form with the highest number of grade II disability cases was dimorphous (60.61%), followed by virchowian (24.24%). The operational classification of the cases showed that 51.52% had up to five skin lesions and 36.36% had one affected nerve, while 63.64% had more than one affected nerve. Positive bacilloscopy was found in 24.24% of the cases. **Conclusion:** Grade II disability in leprosy among children under 15 represents a major public health issue, suggesting late diagnosis and putting this population at risk of permanent physical disabilities if cases do not receive proper follow-up.

Descriptors: Leprosy; Adolescent; Minors; Epidemiology

RESUMO

Objetivo: Descrever o perfil clínico e sociodemográfico da hanseníase em menores de 15 anos com grau II de incapacidade física. **Metodologia:** Trata-se de um estudo descritivo com abordagem quantitativa, analisando dados de pessoas afetadas pela hanseníase com grau II de incapacidade física no período de 2018 a 2021 no estado do Maranhão. **Resultados:** Foram analisados 33 casos de hanseníase em menores de 15 anos já classificados com grau II de incapacidade física. O ano com maior frequência de casos foi 2018, correspondendo a 36,37% dos casos, enquanto 2020 foi o ano com menos casos registrados. Os casos eram predominantemente do sexo masculino, correspondendo a 72,73%, com idade entre 13 e 15 anos (45,46%). A cor parda foi a mais referida, sendo 54,55% dos casos, e 87,88% possuíam ensino fundamental incompleto. A forma clínica com maior número de casos de grau II de incapacidade foi a dimorfa (60,61%), seguida pela virchowiana (24,24%). A classificação operacional dos casos mostrou que 51,52% apresentavam até cinco lesões de pele e 36,36% apresentavam um nervo acometido, enquanto 63,64% tinham mais de um nervo afetado. Baciloscopia positiva foi encontrada em 24,24% dos casos. **Conclusão:** O grau II de incapacidade na hanseníase em menores de 15 anos representa um grande problema de saúde pública, sugerindo um diagnóstico tardio e colocando essa população em risco de incapacidades físicas permanentes, caso os casos não recebam acompanhamento adequado.

Descritores: Hanseníase; Adolescente; Menores de Idade; Epidemiologia.

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INTRODUCTION

Leprosy remains one of the most important communicable diseases because of its chronicity and clinical characteristics, with high detection rates in developing countries such as Brazil. According to the World Health Organization,¹ Brazil, India, and Indonesia are the leading countries in terms of the number of cases worldwide. Brazil is the leading country in the Americas in terms of number of cases, and data from the Brazilian Ministry of Health indicate that in 2021, Brazil reported 15,155 new cases of leprosy, with a total of 625 in children under 15 years of age.¹⁻²

Brazil is the second country in the world and the first in the Americas with the highest number of leprosy cases. The overall national detection rate in 2020 was 8.49 per 100,000 population, with 17,979 new cases. Cases were reported in all regions of Brazil, with a predominance in the Midwest, North, and Northeast regions. The states of Mato Grosso, with an overall new case detection rate of 71.44 per 100,000 inhabitants (2,519 new cases), Tocantins, with 53.95 per 100,000 inhabitants (858 new cases), and Maranhão, with 26.58 per 100,000 inhabitants (1,891 new cases), presented the highest detection rates in Brazil in 2020.³

According to the 2023 epidemiological bulletin on leprosy, 76 countries reported new cases in children under 15 years of age. During 2021, 9,052 new cases were diagnosed in this age group, representing 6.4% of the total number of new cases diagnosed. In Brazil, 761 (4.1%) of new cases diagnosed were in children under 15 years of age.¹

Among the states in Brazil with the highest detection rate among children under 15, Mato Grosso (12.20 per 100,000 inhabitants), Tocantins (9.66 per 100,000 inhabitants) and Maranhão (9.29 per 100,000 inhabitants) had the highest rates.³

Leprosy, considered a neglected disease of notifiable status throughout the national territory, is caused by *Mycobacterium leprae*, a bacillus with tropism for peripheral nerves and skin. The disease is manifested by changes in the sensitivity to heat, touch, and pain in areas of the body with or without lesions. Severe nerve damage can occur along the path of the nerve affected by the bacillus, resulting in physical disability and loss of function, particularly in the eyes, hands, and feet of affected individuals.⁴

For these patients, it is necessary to perform the Physical Disability Grade (PDG) assessment and the Simplified Neurological Assessment (SNA). The PDG is classified from 0 to II. Grade 0 corresponds to the absence of disabilities; grade I refers to the decrease or loss of sensitivity in the eyes, hands, and feet; and grade II concerns motor changes in the eyes, hands, or feet, or visible deformities, being related to the more severe clinical forms, duration of the disease, and occurrence of lepra reactions. The physical disabilities caused

by the disease can range from loss of sensitivity to visible disabilities in the hands, feet, and eyes. Consequently, the PDG assessment should be performed at the time of diagnosis, throughout treatment when necessary, and at the end of treatment or discharge due to cure.⁵

Leprosy in children under 15 years of age is associated with active transmission foci in the community, particularly in the family environment, where there is usually an undiagnosed or untreated person with more infectious forms, maintaining the transmission chain. This reflects the difficulty of local control programs in early diagnosis and timely treatment of multibacillary forms to break the transmission chain.⁶

In Brazil, the National Strategy for Combating Leprosy 2019–2022 aimed to reduce the disease burden in the country by the end of 2022, in order to: 1) reduce the total number of children with grade II physical disability to 30; 2) reduce the rate of people with grade II physical disability to 8.83 per 1 million inhabitants; and 3) implement channels in all Federal Units for recording discriminatory practices against people affected by leprosy and their families.⁷

Subsequently, the World Health Organization launched the Global Leprosy Strategy 2021–2030, marking a major shift in the approach to leprosy control worldwide. This strategy focuses on guidelines for interrupting transmission and eliminating autochthonous cases, with the long-term goal of achieving zero leprosy: zero infection and disease, zero disability, and zero stigma and discrimination.⁸

Indicators of leprosy in children under 15 years old should be study in order to understand the epidemiological and sociodemographic patterns of the disease. The state of Maranhão is classified as hyperendemic, with a detection rate of ≥ 10 cases per 100,000 inhabitants and an evaluation of the degree of physical disability in less than 75% of cases at diagnosis. PDG classification is an important factor in the follow-up and discharge of treated patients. This information is essential for developing strategic actions to decrease these indicators and reduce the impact of leprosy in this age group, providing quality care and improving the physical, mental, and social health of children and adolescents affected by leprosy.¹

OBJECTIVE

The aim of the present study is to describe the clinical and sociodemographic profile of leprosy in children under 15 years old with grade II physical disability in the state of Maranhão, Brazil.

METHOD

Type of study

This is a descriptive study with a time series cut during the period from 2018 to 2021, with a quantitative approach to new cases of leprosy in children under 15 years old classified with grade II physical disability in the state of Maranhão. Cases of leprosy in people under 15 years of age indicate a high endemicity, with hidden prevalence of the disease, that is, people with multibacillary clinical forms who are not diagnosed and under treatment.

Place and period of collection

Maranhão has an estimated population of 7,035,055 inhabitants spread over 217 municipalities, making it the fourth most populous state in the Northeast and the tenth most populous in the country. In 2021, Maranhão had the highest number of new leprosy cases among children under 15 years of age in Brazil, with 126 reported cases.¹

Population and sample

In this study, all new cases of leprosy in children under 15 years of age during the period from 2018 to 2021, classified as physical disability grade II, were considered. Only new cases with PDG II were analyzed, as these individuals are more susceptible to developing deformities and permanent physical disabilities if not properly monitored. Leprosy patients under 15 years of age classified as PDG 0 or PDG I were excluded.

Data collection/Study variables

Data were obtained from the Notifiable Diseases Information System (SINAN). The variables of interest were age, sex, race, education, clinical presentation, number of lesions, operative classification, number of nerve trunks affected, bacilloscopy, reaction episodes, mode of detection, and registration. Data were analyzed using reports from SINAN that included these variables for analysis.

Data analysis/Ethical aspects

Data were entered into Excel spreadsheets and analyzed in terms of absolute values and percentages, with results presented in tables and figures.

This research was exempted from submission to a research ethics committee since it involved consultation of secondary databases. However, all the precautions highlighted in Resolution No. 466 of the Brazilian National Health Council, dated December 12, 2012, were applied.

RESULTS

From 2018 to 2021, 33 cases of leprosy in children under 15 years old with PDG II at the time of diagnosis were reported in Maranhão, with 12 cases (36.37%) in 2018, 11 (33.33%) in 2019, 7 (21.21%) in 2020, and 3 (9.09%) in 2021. The predominant sex was male, representing 72.73% of the cases, with ages between 13 and 15 years (45.46%), brown skin color (54.55%), and incomplete elementary education (87.88%) (Table 1).

Table 1. Sociodemographic data of children under 15 with PDG II in the state of Maranhão from 2018 to 2021. Pinheiro (MA), Brazil, 2023.

AGE	Nº	%	AGE	Nº
13 to 15 years	15	45,46	13 to 15 years	15
10 to 12 years	12	36,36	10 to 12 years	12
7 to 9 years	6	18,18	7 to 9 years	6
Total	33	100,00	Total	33
SEX	Nº	%	SEX	Nº
Female	9	27,27	Female	9
Male	24	72,73	Male	24
Total	33	100,00	Total	33
COLOR/RACE	Nº	%	COLOR/RACE	Nº
White	7	21,21	White	7
Black	7	21,21	Black	7
Yellow	1	3,03	Yellow	1
Brown	18	54,55	Brown	18
Total	33	100,00	Total	33
SCHOOLING	Nº	%	SCHOOLING	Nº
Illiterate	0	0	Illiterate	0
1st to 4th grade of elementary school incomplete	12	36,36	1st to 4th grade of elementary school incomplete	12
Completed 4th grade of elementary school	5	15,15	Completed 4th grade of elementary school	5
5th to 8th grade of elementary school incomplete	12	36,37	5th to 8th grade of elementary school incomplete	12

Regarding the clinical form, most cases were classified as indeterminate, with 20 cases (60.61%), followed by the dimorphous form with eight cases (24.24%). As for the number of lesions, 17 cases (51.52%) had up to five skin lesions, and 16 cases (48.48%) had more than five skin lesions. The predominant operational classification was multibacillary, with 32 cases (96.97%). Evaluation of affected nerve trunks showed that 21 cases (63.64%) had more than one affected nerve. Bacilloscopy was negative in 10 cases (30.30%), positive in eight cases (24.24%), and not performed in 12 cases (36.37%). Of the cases analyzed, 21 (63.64%) had more than one reaction episode. The analysis of the mode of detection of new cases showed that most of them were by referral, with 17 cases (51.52%) (Table 2).

Table 2. Clinical data of children under 15 with PDG II in the state of Maranhão from 2018 to 2021. Pinheiro (MA), Brazil 2023.

Grade II disability at the start of treatment	Nº	%	Grade II disability at the start of treatment	Nº
2018	12	36,4	2018	12
2019	11	33,3	2019	11
2020	07	21,3	2020	07
2021	03	9,0	2021	03
Total	33	100,00	Total	33
CLINICAL PRESENTATION	Nº	%	CLINICAL PRESENTATION	Nº
Undetermined	1	3,03	Undetermined	1
Tuberculoid	0	0	Tuberculoid	0
Dimorphic	20	60,61	Dimorphic	20
Virchowian	8	24,24	Virchowian	8
Not classified	4	12,12	Not classified	4
Not registered	0	0	Not registered	0
Total	33	100,00	Total	33
SKIN LESIONS	Nº	%	SKIN LESIONS	Nº
Up to 5 skin lesions	17	51,52	Up to 5 skin lesions	17
More than 5 skin lesions	16	48,48	More than 5 skin lesions	16
Total	33	100,00	Total	33
OPERATIONAL CLASSIFICATION	Nº	%	OPERATIONAL CLASSIFICATION	Nº
Paucibacillary	1	3,03	Paucibacillary	1
Multibacillary	32	96,97	Multibacillary	32

Total	33	100,00	Total	33
NERVES AFFECTED	Nº	%	NERVES AFFECTED	Nº
Up to 1 nerve affected	12	36,36	Up to 1 nerve affected	12
More than 1 nerve affected	21	63,64	More than 1 nerve affected	21
Total	33	100,00	Total	33
BACYLOSCOPY	Nº	%	BACYLOSCOPY	Nº
Negative	10	30,30	Negative	10
Positive	8	24,24	Positive	8
Not performed	12	36,37	Not performed	12
Not registered	1	3,03	Not registered	1
Unknown	2	6,06	Unknown	2
Total	33	100	Total	33
REACTIONAL EPISODES	Nº	%	REACTIONAL EPISODES	Nº
Not recorded	7	21,21	Not recorded	7
1 reactional episode	5	15,15	1 reactional episode	5
More than 1 reactional episode	21	63,64	More than 1 reactional episode	21
Total	33	100	Total	33
MODE OF DETECTION	Nº	%	MODE OF DETECTION	Nº
Referral	17	51,52	Referral	17
Spontaneous demand	11	33,33	Spontaneous demand	11
Collective examination	4	12,12	Collective examination	4
Contact Examination	1	3,03	Contact Examination	1
Not registered	0	0	Not registered	0
Total	33	100,00	Total	33
MODE OF ENTRY	Nº	%	MODE OF ENTRY	Nº
New case	33	100	New case	33
Transfer from the same municipality (other unit)	0	0	Transfer from the same municipality (other unit)	0
Transfer from Another Municipality (Transfer from Another State (same UF))	0	0	Transfer from Another Municipality (Transfer from Another State (same UF))	0

Transfer from Another State	0	0	Transfer from Another State	0
Recurrence	0	0	Recurrence	0

DISCUSSION

PDG is a measure that indicates the presence of loss of protective sensitivity and/or visible deformity because of neural damage and/or blindness. In this study, there was a decrease in cases with PDG II in children under 15 years of age in the years 2020 and 2021 (10 cases [30.3%]) compared to the years 2018 and 2019 (23 cases [69.7%]). In these years with fewer reported cases, because of the COVID-19 pandemic, notifications were reduced throughout Brazil, which does not necessarily mean that there were fewer cases of PDG II in this population.

The pandemic brought a significant impact on leprosy control actions due to social distancing and the health recommendations in effect at that time, leaving some health control and monitoring strategies, such as for leprosy, in the background, with the population remaining in their homes. In recent studies, such as those conducted by Vieira⁹ and Kerr,¹⁰ the reductions in reported leprosy cases in 2020 were significant due to the impact caused by the COVID-19 pandemic.^{8,9} The COVID-19 pandemic hindered leprosy control actions and the detection of new cases due to social distancing policies, further exacerbating the invisibility of people with neglected diseases, such as leprosy, as observed by the reduction in notifications in the years 2020 and 2021.¹⁰ The reduction in reported cases may not necessarily reflect a real decrease in the incidence of the disease, but rather an interruption in surveillance and reporting systems.

The highest record of PDG II during the study period was in males under 15 years old. Similar results were found in studies conducted in the Legal Amazon and Bahia, which also identified most cases in males under 15 years old. In the study by Lima,¹¹ which analyzed the epidemiological profile of new leprosy cases in children under 15 years old in the Northeast region of Brazil, 52% of the sample was male. However, there is no fixed pattern, as in some regions, there may be a predominance of cases among females under 15. Greater exposure to infectious and untreated forms of leprosy (multibacillary) is a determining factor for contamination, regardless of sex. Even in minors, a lesser concern for health, more common in males, associated with the late diagnosis of multibacillary forms, increases the risk of developing physical disabilities.^{12,13} Factors such as limited access to health services, poor living conditions, and racial discrimination can contribute to greater

vulnerability of these groups to the disease. Therefore, leprosy control strategies must consider these disparities and seek approaches that promote equity in access to health care.

The most affected age group in the study was between 10 and 15 years old. When leprosy is diagnosed in children in this age group, it indicates a failure in diagnosing infectious forms and inadequate treatment. Children exposed to untreated hidden cases are subject to developing different clinical forms due to the long incubation period and the difficulty of diagnosis in this population. Moreover, early infection with leprosy in minors indicates contact in the first years of life with bacilliferous patients in the transmissible form of leprosy, either within the child's own family environment or among their contacts. In the study by Freitas,¹⁴ 70.01% of the cases were in the age group of 10 to 15 years. Oliveira¹⁵ highlights the importance of this indicator and its monitoring, as leprosy in children under 15 years old represents active circulation of *Mycobacterium leprae*. In the context of prevention and intervention plans, it is essential to adopt a holistic approach that incorporates not only early diagnosis and adequate treatment but also community education, reduction of the stigma associated with leprosy, and strengthening of local health systems. Actions that emphasize the prevention of neuropathies and careful monitoring of patients are fundamental to improving clinical outcomes and reducing the impact of the disease.

The highest percentage of cases was recorded in children of brown color/race, as this color/race predominates in the state of Maranhão and is in greater social vulnerability. Lima¹⁶ found 85.2% of cases in the brown color/race, highlighting the sanitary needs amid social inequalities in the region where the study was conducted. This characteristic was also repeated by the study of Freitas,¹⁵ in which 58.4% of the cases were individuals of brown color.¹⁷ In the state of Pernambuco,¹⁸ 68% of patients were brown, which can be explained by the fact that approximately 80% of Maranhão's population is brown. In Brazil, most reported cases of leprosy are in brown individuals, and poverty is concentrated in this group.¹⁸ The fight against leprosy requires an integrated approach that addresses not only the medical aspects of the disease, but also the social and structural determinants that contribute to its persistence. This includes strengthening health systems, promoting equity in access to healthcare, and empowering affected communities to combat the stigma and discrimination associated with the disease. Leprosy is not only a health issue but also a matter of social justice and human rights, which requires a comprehensive and coordinated response from all sectors of society.

When considering the data related to the educational level of leprosy cases, a varied distribution is observed among different educational groups. Although there are no recorded cases among illiterates, it is concerning to note that the highest proportion of cases is among

those with low education levels, represented by the categories “1st to 4th grade of elementary school incomplete” e “5th to 8th grade of elementary school incomplete”. Incomplete elementary education presented the highest rates in the analysis, as a large part of the youth under 15 years old are still in the initial grades of school, as demonstrated in the study by Linhares,¹⁹ which showed 53.2% of the investigated individuals in the initial grades of elementary education. Azevedo^{20,21} reported that 55% of the minors were in elementary education.

The concentration of leprosy cases among those with low education highlights the additional challenges in education and awareness about the disease. Individuals with low educational levels may have less access to health information and a lower understanding of the symptoms and preventive measures of leprosy. Furthermore, the lack of formal education may be associated with unfavorable socioeconomic conditions, which, in turn, increase the risk of exposure to the disease.

The dimorphous clinical form was the most prevalent, followed by the virchowian form, which has a significant epidemiological impact due to being the transmissible form of *Mycobacterium leprae*. In contrast, Lima²² found 31.1% of his sample in the indeterminate clinical form, followed by the tuberculoid clinical form with 27.7%.²³ Multibacillary forms predominated in this study, representing 96.97% of the sample, as well as in the study by Sousa,²⁴ with 62% of their sample in the multibacillary form, corroborating the study by Fernandes,²⁵ which analyzed the leprosy situation in children under 15 years old in the city of Imperatriz, state of Maranhão, and studies by Lira²⁶ on the leprosy profile in the state of Piauí and Campos²⁷ on the epidemiological profile of leprosy in Paraíba and Brazil, which also point to the predominance of the multibacillary form in most of the years researched. The predominance of multibacillary cases is concerning, as it is associated with a higher risk of physical disabilities. Therefore, it is crucial to ensure early diagnosis and adequate treatment to prevent severe complications and reduce the transmission of the disease.

In the years studied, a significant number of minors presented with more than five skin lesions, leading to most being classified as multibacillary. In the study conducted by Ravanelli,²⁸ the prevalence of multibacillary cases was observed only in the years 2011 and 2013, representing 51.2% and 52.5%, respectively. This form of detection is often linked to late diagnosis and a predisposition to developing PDG grades I and II, as explained in the study by Ferreira.^{29,30} In the study by Sousa,²⁴ single lesions were the most prevalent, with 99.1%. This discrepancy in results highlights the importance of continuous analysis of leprosy epidemiological data and the consideration of multiple studies to obtain a comprehensive understanding of the disease situation. Regardless of the prevalence of

single or multiple skin lesions, it is crucial to emphasize the importance of early diagnosis and adequate treatment of leprosy. Late diagnosis is associated with a higher risk of developing physical disabilities, which can have a significant impact on patients' quality of life. Therefore, it is essential to promote awareness campaigns about the symptoms of leprosy, train healthcare professionals to recognize early signs of the disease and ensure timely access to health care services for diagnosis and treatment.

In this study, 63.64% of the patients had more than one affected nerve trunk, while 36.36% had only one affected nerve trunk. Exceptional cases identified, such as a 14-year-old adolescent with 50 skin lesions and a 10-year-old child with 23 skin lesions, are alarming and raise important questions about the diagnosis and management of leprosy. These cases demonstrate advanced progression of the disease and suggest a late diagnosis, which can lead to serious complications and physical disability. Skin lesions and nerve trunk involvement occur because of disease progression and continued contact with untreated multibacillary forms. Household contacts of these clinical forms are at higher risk of acquiring the disease.³¹ As shown in the study by Linhares,¹⁹ most diagnosed leprosy cases knew and had regular contact with other people with the disease.²²

For example, the coexistence of children under the age of 15 with untreated individuals increases the risk that they will become contaminated with the bacillus and develop more severe forms of leprosy. Azevedo²¹ showed that many people diagnosed with leprosy have visible deformities, making the treatment and follow-up of cases essential to evaluate clinical improvement, as PDG II causes severe impairment of quality of life.

The observation of a significant proportion of cases with negative bacilloscopy (30.30%) is worrying and suggests challenges in the laboratory diagnosis of leprosy. Recent studies, such as that of Sousa,²⁴ highlight this problem and emphasize the limitations of bacilloscopy in detecting leprosy cases, especially in paucibacillary forms of the disease. The low sensitivity of bacilloscopy may lead to under-diagnosis and under-reporting of cases, which is a major obstacle to effective control of the disease.

On the other hand, a positive bacilloscopy in 24.24% of the analyzed cases indicates a significant bacillary load in a substantial proportion of the sample. This underscores the importance of transmission control strategies, such as appropriate treatment of confirmed cases and tracing of exposed contacts. However, it is worrying that bacilloscopy was not performed in 36.37% of the cases, suggesting gaps in the protocols for diagnosis and surveillance of leprosy.

The occurrence of multiple reaction episodes in 63.64% of the cases analyzed is a relevant finding, as it indicates the clinical instability of the disease in a significant proportion

of the sample. Farias³¹ emphasizes the importance of adequate management of leprosy reactions to prevent additional neural damage and reduce the risk of physical disability. However, it is important to consider that the management of leprosy reactions can be challenging due to the variability of patient responses and the lack of clear management guidelines in some settings.

These findings underscore the urgent need to improve leprosy diagnostics, including the use of new technologies. In addition, health systems should be strengthened in order to ensure universal access to quality diagnostic tests and continuous training of staff to suspect and properly manage the disease. This will ensure proper follow-up of diagnosed cases. Early detection of the disease and effective management of leprosy reactions are essential to prevent physical disability and interrupt transmission of the disease, thereby contributing to effective leprosy control.

Although most cases (51.52%) were referred for medical care, a significant proportion of patients sought care spontaneously (33.33%). This underscores the importance of awareness of the symptoms of leprosy and easy access to health services. However, even with spontaneous seeking of care, the cases identified still presented with advanced stages of the disease, indicating possible failures in early diagnosis and provision of adequate health care.

Farias lists and develops operational plans to prevent neuropathies that leprosy patients may suffer, emphasizing strategic actions for epidemiologic investigation of contacts, early diagnosis, and appropriate treatment.³¹ Plans to prevent physical disability, educate patients about the disease, combat stigma, and reduce resistance to treatment are needed to promote better clinical outcomes.³¹

These findings underscore the urgent need to strengthen leprosy control programs, with particular emphasis on early diagnosis and appropriate case management. This includes training health care workers to recognize the signs and symptoms of the disease, improving access to diagnostic tests and effective treatment, and raising public awareness of the importance of seeking early medical care. It is also essential to invest in research and innovation to develop new strategies for the prevention and control of leprosy, with the aim of eliminating the disease as a public health problem.

CONCLUSION

This study showed that the vast majority of minors under 15 affected by leprosy with PDG II in the state of Maranhão were predominantly male adolescents, of mixed race, with incomplete primary education. PDG assessment was performed at the time of diagnosis,

indicating the quality of services for assessing the degree of physical disability. However, a significant percentage of cases were diagnosed in the dimorphic clinical form, suggesting the need to improve planning for early diagnosis of hidden cases, thus breaking the epidemiological chain of transmission.

Leprosy in children under the age of 15 can lead to disabilities and physical limitations that affect their quality of life. Leprosy has a negative impact on the lives of patients, manifesting itself in social stigma and physical disabilities that can occur if adequate follow-up care is not provided.

CONTRIBUTIONS

Josuel Carlos Oliveira and Daniel Lemos – Idea and beginning of writing the study project;

Josuel Carlos Oliveira, Daniel Lemos and Thais Furtado – creating the project, grouping the data and preparing the results and discussions;

Josuel and Alanna Mylla – construction of the introduction and methodology;

Dallen Junno, Josuel and Eusilene Estrela – finalization of the methodology and theoretical framework.

Lurdilene Rodrigues, Thais Michele and Josuel – finalization of results and discussions, spelling corrections, summary.

CONFLICT OF INTEREST

Nothing to declare.

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