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EPIDEMIOLOGICAL AND CLINICAL PROFILE OF LEPROSY IN A HYPERENDEMIC CAPITAL

PERFIL EPIDEMIOLÓGICO E CLÍNICO DA HANSENÍASE EM CAPITAL HIPERENDÊMICA PERFIL EPIDEMIOLÓGICO Y CLÍNICO DE LA HANSENIASIS EN CAPITAL HIPERENDÊMICA

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Objective: to describe the epidemiological and clinical profile of leprosy in hyperendemic capital. Method: quantitative, descriptive study performed at health institutions that operate the SHP. The instrument was adapted for the collection of data based on the information contained in the tab of the Notification Stapling Information System. The data processing and analysis were performed in the Epi-Info program, version 7, and the results, presented in tables. Results: 1,055 cases were reported, of which 51.2% were male, aged between 21 and 40 years (35.4%). Of the total, 79.1% were classified as new cases and 52.0%, detected by spontaneous demand. The predominant clinical form was dimorphism (58.8%) and, in terms of operational classification, 74.1% were multibacillary. Conclusion: the occurrence of leprosy is still high, indicates a failure in the quality of actions performed by health professionals, results in increased transmissibility of the disease, late detection of cases and the emergence of physical disabilities. Various measures should be taken for proper treatment. These will contribute to the early diagnosis, appropriate treatment and prevention of the disease. Descriptors: Leprosy; Epidemiology; Endemic Diseases; Health Evaluation; Public Health; Nursing.

RESUMO

Objetivo: descrever o perfil epidemiológico e clínico da hanseníase em capital hiperendêmica. Método: estudo quantitativo, descritivo, realizado em instituições de saúde que operacionalizam o PCH. Adaptou-se o instrumento para a coleta de dados com base nas informações contidas na ficha do Sistema de Informação de Agrafos de Notificação. O processamento e a análise dos dados foram realizados no programa Epi-Info, versão 7, e os resultados, apresentados em tabelas. *Resultados*: foram notificados 1.055 casos, dos quais 51,2% eram do sexo masculino, na faixa etária entre 21 a 40 anos (35,4%). Do total, 79,1% foram classificados como casos novos e 52,0%, detectados por demanda espontânea. A forma clínica predominante foi a dimorfa (58,8%) e, quanto à classificação operacional, 74,1% eram multibacilares. *Conclusão*: a ocorrência de hanseníase ainda é elevada, indica falha na qualidade das ações realizadas pelos profissionais de saúde, resulta no aumento da transmissibilidade da doença, na detecção tardia dos casos e no surgimento de incapacidades físicas. Várias medidas devem ser tomadas para o tratamento adequado. Essas contribuirão para o diagnóstico precoce, o tratamento adequado e a prevenção da doença. Descritores: Hanseníase; Epidemiologia; Doenças Endêmicas; Avaliação em Saúde; Saúde Pública; Enfermagem.

RESUMEN

Objetivo: describir el perfil epidemiológico y clínico de la hanseniasis en capital hiperendémico. Método: estudio cuantitativo, descriptivo, realizado en instituciones de salud que operan el PCH. Se adaptó el instrumento para la recolección de datos con base en las informaciones contenidas en la ficha del Sistema de Información de ágrafos de notificación. El procesamiento y el análisis de los datos fueron realizados en el programa Epi-Info, versión 7, y los resultados, presentados en tablas. Resultados: se notificaron 1.055 casos, de los cuales (51,2%) eran del sexo masculino, en el grupo de edad entre 21 a 40 años (35,4%). Del total, el 79,1% fueron clasificados como casos nuevos y el 52,0%, detectado por demanda espontánea. La forma clínica predominante fue la dimorfa (58,8%) y, en cuanto a la clasificación operacional, el 74,1% eran multibacilares. Conclusión: la ocurrencia de hanseniasis todavía es elevada, indica falla en la calidad de las acciones realizadas por los profesionales de salud, resulta en el aumento de la transmisibilidad de la enfermedad, en la detección tardía de los casos y el surgimiento de incapacidades físicas. Varias medidas deben tomarse para el tratamiento adecuado. Estas medidas contribuirán al diagnóstico precoz, el tratamiento adecuado y la prevención de la enfermedad. Descriptores: Hanseniasis; Epidemiología; Enfermedades Endémicas; Evaluación em Salud; Salud Pública; Enfermería.

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INTRODUCTION

Leprosy is a challenging public health problem because it is a disabling disease. This limitation, caused by the disease, generates several problems such as: restriction of social life, withdrawal from the work environment, psychological problems, stigma and prejudice. Even amid efforts by the Ministry of Health, the active transmission of the disease continues to grow at alarming levels. 1-2

Brazil occupies the second place in the world ranking reporting approximately 31 thousand new cases per year.³ In the country, there was a reduction of the general detection coefficient between the years 2003 and 2009 (33.1%). However, the North, Northeast and Center-West regions still have very high coefficients, especially when compared to the South and Southeast of the country.⁴⁻⁵

According to the epidemiological survey of the Ministry of Health, Maranhão is composed of 217 municipalities, of which 98 are considered as hyperendemic for leprosy, the State being classified as the fourth with the highest notification of the disease.⁶

The capital, São Luís, presented 60.1 cases per 100 thousand inhabitants, in the year 2010, characterizing a pattern of hyperendemicity. However, in the last six years, there was a significant decrease in the general detection coefficient of 5.5 cases / 100,000 inhabitants per year.⁷⁻⁸

This study is justified by the fact that leprosy still represents a public health challenge and can generate physical disabilities and deformities in the affected population. Thus, the Ministry of Health seeks its elimination and / or reduction of cases, mainly in the North, Northeast and Central West regions. 9

In the light of the above, the problem of this research focuses on the following question: What is the profile of new leprosy cases, notified in 2012, in São Luís - MA?

OBJECTIVE

• To describe the epidemiological and clinical profile of leprosy in hyperendemic capital.

METHOD

A quantitative, descriptive study carried out in all health institutions that operate the SHP in the city of São Luís (MA), according to their degree of performance in relation to the epidemiological indicators and clinical evaluation of the cases.

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According to the Municipal Health Secretariat (SEMUS), the health services network of the municipality is made up of 92 UHS units, according to data from the National Registry of Health Establishments (NRHE), of which 57 have the SHP.⁸⁻⁹

Included in the study were all cases of leprosy registered and reported in the health units that operate the SHP in 2012. Considering that, in 2012, 1,055 cases of leprosy were reported and 3,310 contacts were registered, the population for leprosy The study consisted of 4,365 outbreaks for the.⁸⁻⁹

The defined population, composed of the cases reported and registered in the year 2012, is justified by the need for the data regarding the completeness of the treatment and outcome of the individual, considering that the minimum period for the treatment of the patient with leprosy is six months and maximum of 18 months, considering the traditional therapeutic schemes. However, with regard substitute therapeutic to regimens, the treatment time can reach 36 months. Thus, the study in the years subsequent to the established would imply the non-evaluation of its outcome.

Exclusion criteria were those cases in which the medical records or records were scraped and / or illegible for the determination of the data, as well as those not located.

The instrument was adapted for the collection of data based on the information contained in the sheet of the Information System of Notification Staples (SINAN). The form used was to fill in the information on cases of leprosy composed as follows: sociodemographic variables - age, sex, race / color and origin; social variable of schooling; clinical variables - clinical form, operational classification, entry mode, new case detection mode.

The previous listing was based on the document made available by the State Department of Health (SDH) referring to the units with cases of leprosy, notified in 2012, in order to obtain subsidies to direct the collection of data. A survey of the 57 health units that operated the SHP in the city of São Luís was carried out and it was identified that 44 registered and reported cases of leprosy in the year 2012. Thus, the realization of this study was, in fact, in 44 units, the others being included in the following exclusion criterion: health units that did not have records of cases notified in 2012.

The data were collected from September 2015 to March 2016, in the notification sheets,

in the registry book and in the medical records of patients diagnosed with leprosy, notified in 2012, as shown in the graphical representation.

Data were organized in the Excel program, which were later processed and analyzed in the Epi-Info program, version 7, and presented in the form of absolute and relative frequency tables.

The formal requirements contained in the national and international standards regulating research involving human beings under the number of opinion 1,152,824 and CAAE 44720914.3.0000.5086.

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RESULTS

According to the data collected, based on the registry book, medical records and notification form, 1,055 cases were reported and 3,310 intradomiciliary leprosy contacts, were registered in the year 2012, in the city of São Luís - MA. It is worth mentioning that the variables that do not totalize the overall quantification of 1,055 cases are due to the inconsistency in the registration of health professionals. The results are presented in Tables 1, 2, 3 and 4.

Table 1. Sociodemographic profile of leprosy cases reported in 2012, according to age, sex, race / color, schooling and residence. São Luís (MA) Brazil, 2016.

to age, sex, race / color, schooling and residence. São Luís (MA) Brazil, 2016.				
Variables		n	<u>%</u>	
AGE	01 a 20	194	18.4	
	21 a 40	372	35.4	
	41 a 60	295 177	28.0 16.8	
	61 a 80 >80	15	1.4	
	Total	1053	100.0	
Sex	Male	536	51.2	
JCX	Female	511	48.8	
	Total	1047	100.0	
Daga /Calar				
Race/Color	White	133	15.8	
	Black	110	12.9	
	Yellow	19	2.2	
	Brown	532	62.8	
	Indigenous	50	5.8	
	Not Registered	1	0.1	
	Ignored	4	0.4	
	Total	849	100.0	
Education	Illiterate	65	7.8	
	Incomplete 1st to 4th	114	13.4	
	grade ES (former primary			
	or primary)			
	ES Complete 4th Grade	51	6.0	
	Incomplete 5th to 8th	118	13.9	
	·	110	13.7	
	grade ES (former			
	gymnasium or 1st grade)	100	11.0	
	Male	100	11.8	
	Female	81	9.5	
	Total	221	26.0	
	White	25	2.9	
	Black	37	4.5	
	Yellow	27	3.3	
	Brown	8	0.9	
	Indígena	847	100.0	
Residence	Not Registered	693	80.6	
	Ignored	63	7.4	
	Other municipalities in the	96	11.3	
	State			
	Other states	3	0.3	
	Not registered	4	0.4	
		859	100.0	
	able: SINAN / Book of records /		100.0	

Source of the table: SINAN / Book of records / Records (2016).

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Table 2. Cases of leprosy reported, in the year 2012, according to the mode of entry and detection mode. São Luís (MA) Brazil, 2016.

Variable	s		n	%
Input Mode		New case	194	18.4
		Transfer from the same	372	35.4
		municipality (other unit)		
		Transfer from another	295	28.0
		municipality (same UF)		
		Transfer from another	177	16.8
		State		
		Transfer from another	15	1.4
		Country		
		Relapse	1053	100.0
		Other re-entries	536	51.2
		Not registered	511	48.8
		Total	1047	100.0
Mode	of	Forwarding	133	15.8
detection	of			
new cases		Spontaneous demand	110	12.9
		Collective Examination	19	2.2
		Examination of contacts	532	62.8
		Other modes	50	5.8
			1	0.1
		Not registered Total	849	100.0
		Ισιαι	047	100.0

Source of the table: SINAN / Book of records / Records (2016).

It was identified that the predominant clinical form of leprosy was dimorphic, reaching 611 cases (58.8%), followed by the

tuberculoid form, with 207 (19.9%) cases, according to table 3.

Table 3. Distribution of clinical characteristics of cases reported with leprosy in the municipality of São Luís, in 2012. São Luís (MA) Brazil, 2016.

Variables		n	%
Clinical form	Undetermined	65	6.4
	Tuberculoid	207	19.9
	Dimorph	611	58.8
	Virchowiana	147	14.1
	Not classified	3	0.2
	Not Registered	6	0.6
	Total	1039	100.0

Source of the table: SINAN / Book of records / Records (2016).

Table 4. Operational classification of cases reported with leprosy in the municipality of São Luís, year 2012. São Luís (MA) Brazil, 2016.

Variables		n	%
Operational classification	Paucibacillary	272	25.9
	Multibacillary	777	74.1
	Total	1049	100.0

Source of the table: SINAN / Book of records / Records (2016).

DISCUSSION

The socio-demographic profile of individuals with leprosy in the city of São Luís do Maranhão was highlighted in this study, highlighting the prevalence of leprosy cases in the age group between 21 and 40 years. This data is quite relevant, since the economically active population is the most affected by leprosy and can harm the economy of the municipality due to the physical disabilities, deformities and reactional states resulting from the disease and, consequently, the individual's withdrawal from their work activities generating additional social costs.

Thus, it is necessary to implement interventionist strategies and an effective leprosy control policy in order to minimize the socioeconomic impact and the spread of the endemic disease.¹²

Regarding the gender variable, the prevalence of leprosy cases in males was corroborated by the study carried out in the State of Rondônia, during the period from 2001 to 2012, which shows this characteristic as a consequence, mainly, of the greater exposure of men to the factors that trigger the disease, possibly in their workplaces, and also because men seek health care on a

smaller scale and are less concerned about the physical changes caused by the disease. 13

During the predominant race / color evaluation of new cases of leprosy, it was observed that the brown population stands out in relation to the white population. These data are in agreement with another study carried out in the city of Guarulhos, in the State of São Paulo, from 2004 to 2009, where white predominated. The authors maintain that such distribution results from the ethnic composition of each social group thus justifying the results obtained in this study taking into account the local reality formed, for the most part, by browns and blacks. 12,15

With regard to schooling, the findings of this research revealed a higher percentage of cases in individuals with complete secondary education (formerly called high school or high school). This reality differs from other Brazilian studies, whose data indicate that low schooling is a predominant characteristic of people affected by leprosy. 12,14,16

Regarding the level of schooling observed in this study, according to the 2012-2014 Pluriannual Plan Monitoring Report (PPA), published by the Ministry of Planning, Budget and Management, which deals with the Portrait of Social Policies in the National Sample Survey These results may reflect the educational advances that have taken place in the country in the last two decades, where increased access has led to an increase in average schooling. These advances are rooted in the development strategy of the 2012-2015 PPA, which aims at the inclusive growth, especially of the most vulnerable population groups, including leprosy. 9

Most new cases of leprosy have been reported in individuals living in the state capital. This information is the result of migration and geographic organization in urban space. The process of urbanization of the population is justified by the search for better living conditions, such as schools, employment, health and safety, which results in the population increase of urban centers and socioeconomic vulnerability. Thus, with the accelerated population increase, health services are overcrowded, causing a decrease in the quality of services provided.¹²

Based on the importance of evaluating the epidemiological panorama of the disease, it was observed that the priority mode of entry of patients with leprosy occurred through registration as a "new case", that is, the mode of registration of the user who never received the specific treatment for the pathology and presents cutaneous lesions with decreased sensitivity, peripheral nerve thickening with

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sensory and motor impairment, and the presence of M. leprae bacillus confirmed by diagnostic examination.¹⁷

When corroborating the study carried out in the city of São Luís, Maranhão, where the mode of entry of patients corresponded to 58.33% as "new cases", it was verified that the remain high. The high rates the North, Midwest especially in Northeast regions, in which the State of Maranhão is inserted, according to data from the Health Surveillance Secretariat - HVS, suggest an increase in the incidence of the disease.7 Therefore, it is necessary a greater commitment of the health professionals in the operationalization of educational preventive actions directed to the priority population, as well as the active search of the contacts and examinations of collectivity.

During the evaluation of the detection of new cases of leprosy, the classification of "spontaneous demand" (52.0%) was predominant, a quantitative one that is similar to a study carried out with the objective of analyzing the epidemiological situation in leprosy and its relationship with the development of control actions where most of the diagnoses were performed through spontaneous demand, that is, the population itself sought the health service.¹⁸

It is worth mentioning that the collective examinations were responsible for only 0.4% of the diagnoses of the new cases, coinciding with that observed in other studies. 18-9 As with the contact exams, the community tests are considered as one of the main research tools and early detection of cases of leprosy, contributing to a decrease in the hidden prevalence of cases and a reduction in physical disabilities. These data suggest that active search is poorly implemented in the health services of the city of. State, revealing a failure in the applicability of the guidelines proposed by the National Plan for the Elimination of Leprosy.

Regarding the clinical form, it was verified that there was predominance of the dimorphous form, identified in 58.8% of the cases. These results are comparable with the study carried out in the State of Maranhão, 12 where the prevalence of dimorphic leprosy indicates that the detection of cases occurs late, contributing to a higher risk of high degrees of physical disabilities and collaborating to maintain the chain of transmission of the disease. 11,13

The most frequent operational classification, found in the city of São Luís-MA, was multibacillary, identified in 74.0% of the cases, corroborating the studies that

aimed to analyze the profile of leprosy cases reported in the State of Maranhão, between 2001 and 2012. In both studies, there was a prevalence of multibacillary operational classification of newly diagnosed leprosy cases. Patients who have the multibacillary form of the disease represent the greatest source of propagation of the M. leprae bacillus, which can eliminate it in the environment, causing the contamination of healthy individuals.

CONCLUSION

In view of the facts, it can be inferred that the SHP in the city of São Luís is not consolidated, since the majority of reported cases were of the multibacillary type with predominance of the dimorphous form. It is pointed out that the verified reality, through this study, is a sign of failure in the quality and effectiveness of the actions performed by health professionals resulting in increased transmissibility of the disease, late detection of the cases and, consequently, the appearance of physical disabilities.

As a limitation of this research, the significant number of fields ignored by health professionals during the filling of the medical records, registry book and notification records of patients with leprosy is highlighted, which makes it difficult to accurately diagnose the real situation in which the municipality as well as the difficulty in finding the records of the notified patients needed to collect the data universe.

It is suggested to the health services, the intensification of actions to control cases of leprosy, the active search of absentees and patients in abandonment of treatment, the accomplishment of examinations of the contacts, as well as the adequate completion of the notification form, book and records of patients. It is also essential to invest in training and training of all health professionals, focusing on the professionals responsible for carrying out the evaluation of the leprosy patient, conducting educational activities such as lectures, joint efforts, dissemination of signs and symptoms manifested by the disease at the community level and sensitize the population.

Such measures will contribute to the early diagnosis, appropriate treatment and prevention of physical disabilities caused by the disease. These actions are essential for the control of the endemic.

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