

EPIDEMIOLOGICAL PROFILE OF LEPROSY IN RONDÔNIA

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Abstract: This article contemplates the epidemiological profile of leprosy cases in the state of Rondônia, in the period from 2011 to 2020, differentiating in terms of sex, age, presentation of the multibacillary and paucibacillary disease, and cities of notification, in addition, the number of cases is evidenced. that evolved to cure the disease, important for evaluating the effectiveness of therapeutic measures to combat the disease. The data presented by the study corroborate the known epidemiology of the disease, in addition, it discusses the importance of the new treatment protocol. The work creates reflections to improve the possible diagnostic errors and solve the problems in these health services in order to avoid the chronicity of the disease reactions for the patients.

Keywords: Leprosy, Early diagnosis, Leprosy reactions, Epidemiological Profile.

INTRODUCTION

Leprosy is an infectious disease caused by the bacterium *Mycobacterium leprae* or Hansen's bacillus, having been identified in 1873 by the scientist Armauer Hansen. Currently, the treatment is offered free of charge by the Unified Health System, however, the disease still remains a public health problem. In 2016, the Ministry of Health recorded more than 28,000 new cases of the disease in Brazil. In 2011, 228,474 cases of leprosy were diagnosed worldwide, of which 33,955 were in Brazil. (ELIOENAI et al., 2014).

The first records of leprosy in Brazil date back to 1600, in the city of Rio de Janeiro, at the time the sick were isolated from society and their belongings were incinerated due to the lack of knowledge about the forms of transmission of the disease, generating great prejudice. It is known that despite being contagious, it takes a great deal of exposure to contract the disease, in addition to depending

on the individual response to the manifestation of symptoms. (EIDT, 2004).

Leprosy has a high prevalence in the population with low education, lacking basic health care, social and health care services. In addition to these, other socioeconomic factors favor the high incidence of the disease, such as low investment in prevention, geographic isolation and dependence on services and information, which, in most cases, are scarce and affect the population's ability to only, improve the conditions of their own health. (BRAZIL. 2004).

The possibility of being leprosy is observed by the health team and by the patient himself, evaluating the clinic and making the diagnosis. Currently, leprosy has treatment and cure, however, if at the time of diagnosis the patient already has some physical deformity installed, this can remain as a permanent sequel at the time of discharge. This data reinforces the importance of early diagnosis and the immediate initiation of appropriate treatment for the prevention of physical disabilities that the evolution of the disease can cause. The diagnosis is made through physical examination, where a dermatoneurological evaluation is carried out, seeking to identify clinical signs of the disease. (ELIOENAI et al., 2014).

The preventive, promotional and curative actions that have been successfully carried out by the Family Health Teams show a strong commitment to the professionals, however they are still precarious and need improvements and investments aimed at a better diagnosis to early discover and treat the disease. (BRAZIL. MINISTRY OF HEALTH, 2002).

This commitment, however, requires a team of professionals who are informed about the signs and symptoms of the disease, which has easy access to diagnosis and treatment, and that leprosy patients can be guided along

with their families during the entire healing process. It therefore requires trained health professionals to deal with all these aspects. Physical disabilities in the eyes, hands and feet can be avoided or reduced if leprosy patients are identified and diagnosed as quickly as possible, treated with simplified techniques and monitored in primary care health services. In this case, it is essential to inform health professionals, from primary care, about the most important and up-to-date knowledge for approaching patients with leprosy, as a training instrument, hoping that they can contribute to the elimination of the disease in the country and collaborating to reintegration of treated patients into family and social life. Because, in addition to providing early treatment, it also prevents overcrowding in the health system. (BRAZIL. MINISTRY OF HEALTH, 2002).

The diagnosis of leprosy is based on some clinical signs, such as the absence of sensitivity in skin lesions, the thickening of peripheral nerves and the demonstration of *M. leprae* in the lymph smear or histological tissue sections. It is important to understand that clinical recognition is the main instrument that allows the determination of the disease, which is the main cause of the difficulty in establishing the diagnosis, since many professionals have difficulty in recognizing the suggestive findings of this pathology. (SILVEIRA et al., 2014).

The control and detection of leprosy cases with effective treatment are essential instruments within the health policy, since health care also depends on quality care. (BRAZIL, 2008).

Justifying, therefore, the development of this study, for a better understanding of the epidemiological profile in the state of Rondônia, thus making it possible to point out relevant changes in Primary Care, in order to improve care for patients with leprosy.

METHODOLOGY

This article is an epidemiological cross-sectional retrospective study with a descriptive quantitative approach. Being a meta-analysis of secondary data provided through the State Agency for Health Surveillance of Rondônia. The information relevant to the research was collected by the authors of the research, through the analysis of secondary data obtained from the notification files of new cases of leprosy in primary care in the municipalities of Rondônia, from 2011 to 2020.

The variables analyzed were related to the patient's sex, under 15 years old, paucibacillary, multibacillary and new cured cases, aiming to demonstrate the incidence of the disease in the municipalities of Rondônia with more than 150 cases reported over the years in the mentioned period. The municipalities that qualified were: Alto Alegre dos Parecis; Ariquemes; Cacoal; Jaru; Ji-Paraná; Ouro Preto do Oeste; Good Pepper; Porto Velho; São Miguel do Guaporé and Vilhena.

The study analyzed the epidemiological profile of leprosy cases in the state of Rondônia, seeking to verify the incidence according to the variables. The data are presented in a descriptive way and through graphic meta-analysis of the epidemiological information collected, in compliance with the ethical precepts of Resolution 466/12 of the CNS (National Health Council).

RESULTS

The municipalities with more than 150 new cases notified in the period from 2011 to 2020 are 10 of the 52 that make up the territory of Rondônia, together they added up to 3,561 new cases of accumulated incidence of leprosy of the 6,316 new cases notified throughout the state in this period, representing about of 56.4% of all notifications. Table 1 shows the data for these

10 municipalities within the mentioned period, distributed in descending order.

The notifications of cases of the disease in children under 15 years old are presented in table 2, showing that leprosy also affects adolescents and, in addition, the city with the most notifications (Ji-Paraná) was not the city with the largest population in the state (Porto Velho), which may have occurred due to the increase in cases in this age group in the city of Ji-Paraná in 2013.

Correlating the data regarding the sex of the patients, the prevalence of leprosy in males is evident (Table 3), despite the fact that in 2018 there was a peak in the incidence of cases of the disease in women, especially in the city of São Miguel do Guaporé, given that the reason is not clarified, but it is presented in table 4 and becomes more evident in the figure 1.

Table 3 shows a cumulative total incidence of male cases of 2,007 cases compared to 1,554 female cases, a ratio of approximately 1.3:1. From the analysis of Figure 1, we can see the peak of cases in women in 2018, highlighting the municipality of São Miguel above the others in that year, with 86 new cases reported, a discrepant data without understandable motivation.

Figure 2 in relation to figure 1 demonstrates how the incidence in males is visibly higher in the graphic projection.

The tables 5 and 6 below demonstrate the incidence of cases in the same municipalities as in the previous tables, but here the forms of manifestation of the disease in Paucibacillary (Table 5) and Multibacillary (Table 6) are broken down.).

It is evident, after analyzing tables 5 and 6, that the incidence of the disease in its multibacillary form is considerably higher in relation to the paucibacillary form, and the total number of cases presented in the highlighted municipalities, in the multibacillary form

according to the tables is 2,545 and in the paucibacillary form it is a total of 1067. This reveals an approximate amount of 2.4 times greater of multibacillary cases.

Table 7 presents information about the cases considered cured, however it is known that the treatment of leprosy is long, and relapses may occur, or even abandonment of treatment adherence, which is why it is difficult to measure cured cases in a credible way.

Figures 3 and 4 below illustrate in the graphic projection the incidence of cases in the pauci and multibacillary modalities, clearly demonstrating that there was a gradual reduction over the analyzed period, with the exception of the year 2018 in the multibacillary modality, as this year it had a rise outside the curve. Figure 5 shown below shows the graphic projection of the incidence of cured cases, the decline of these events throughout the projection is evident, which agrees with the decrease also presented in the projections of new cases of sick people. However, the cumulative incidence of new cases was 3,561 and of cured cases was only 2,965.

DISCUSSION

The etiopathogenesis of leprosy occurs through the contact of human beings with the etiological agent that causes the disease, which is the bacterium "*Mycobacterium leprae*", also called Hansen's Bacillus, initially described in 1854. It has the shape of a rod with rounded ends and its Dimension varies between 1 and 8 microns in length and 0.3 to 0.5 microns in thickness. It is an obligate intracellular parasite and has an affinity for skin and peripheral nerve cells. Its multiplication time is slow, on average from 11 to 16 days. It can be found alone or in heaps that are called "Globias", this is shaped like skeins or cigarette packs and are joined by a gelatinous substance known

Cities	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Accumulated incidence
Porto Velho	106	139	121	84	72	62	64	86	71	40	845
Ji-Paraná	103	91	77	70	52	16	39	78	28	17	571
Cacoal	66	50	40	61	50	35	24	34	30	16	406
Ariquemes	46	46	35	50	49	28	48	39	16	14	371
Vilhena	42	36	31	28	41	29	27	32	30	31	327
São Miguel do Guaporé	23	10	28	15	10	23	32	111	25	10	287
Ouro Preto do Oeste	52	33	18	25	17	15	15	30	18	14	237
Alto Alegre dos Parecis	6	14	27	21	14	5	15	12	36	18	168
Jaru	16	23	23	20	8	9	15	29	13	12	168
Pimenta Bueno	22	18	13	20	10	12	13	30	26	17	181

Table 1 - New cases of leprosy in children under 15 years old reported by the ten municipalities with more than 150 total new cases in the period from 2011 to 2020. Source: State Health Surveillance Agency of Rondônia – AGEVISA.

Cities	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Accumulated incidence
Ji-Paraná	9	8	13	9	4	0	1	5	1	1	51
Porto Velho	10	9	5	7	6	4	2	2	2	1	48
Ariquemes	6	4	2	3	2	0	4	3	1	1	26
Vilhena	1	4	4	1	6	0	2	1	1	2	22
Pimenta Bueno	2	2	1	2	1	0	0	3	4	3	18
São Miguel do Guaporé	2	0	3	1	1	2	1	6	2	0	18
Cacoal	0	3	4	4	2	2	1	0	0	0	16
Alto Alegre dos Parecis	1	0	4	0	0	0	2	1	0	0	8
Ouro Preto do Oeste	3	2	1	0	0	1	0	0	0	0	7
Jaru	0	0	2	2	1	0	0	0	0	0	5

Table 1 - New reported cases of leprosy in municipalities with more than 150 new cases in the state of Rondônia from 2011 to 2020. Source: State Health Surveillance Agency of Rondônia – AGEVISA.

Cities	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Accumulated incidence
Porto Velho	77	95	85	59	46	29	45	55	43	27	561
Ji-Paraná	65	44	43	34	30	13	27	32	12	9	309
Cacoal	39	26	21	26	31	20	17	21	16	13	230
Ariquemes	26	23	17	27	31	13	27	27	12	6	209
Vilhena	25	22	17	14	24	15	15	23	12	19	186
Ouro Preto do Oeste	34	20	11	14	11	8	10	12	12	6	138
Pimenta Bueno	15	10	9	10	5	6	9	17	15	13	109
São Miguel do Guaporé	15	8	12	6	4	6	9	25	8	6	99
Jaru	7	16	14	11	4	4	10	14	6	7	93
Alto Alegre dos Parecis	4	6	16	9	6	1	7	4	12	8	73

Table3-New cases of male leprosy reported by the ten municipalities with more than 150 total cases in Rondônia from 2011 to 2020. Source: State Health Surveillance Agency of Rondônia– AGEVISA.

Cities	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Accumulated incidence
Porto Velho	29	44	36	25	26	33	19	31	28	13	284
Ji-Paraná	38	47	34	36	22	3	12	46	16	8	262
São Miguel do Guaporé	8	2	16	9	6	17	23	86	17	4	188
Cacoal	27	24	19	35	19	15	7	13	14	3	176
Ariquemes	20	23	18	23	18	15	21	12	4	8	162
Vilhena	17	14	14	14	17	14	12	9	18	12	141
Ouro Preto do Oeste	18	13	7	11	6	7	5	18	6	8	99
Alto Alegre dos Parecis	2	8	11	12	8	4	8	8	24	10	95
Jaru	9	7	9	9	4	5	5	15	7	5	75
Pimenta Bueno	7	8	4	10	5	6	4	13	11	4	72

Table 2 - New cases of leprosy in females reported by the municipalities of Rondônia with more than 150 total cases in the period from 2011 to 2020. Source: State Health Surveillance Agency of Rondônia – AGEVISA.

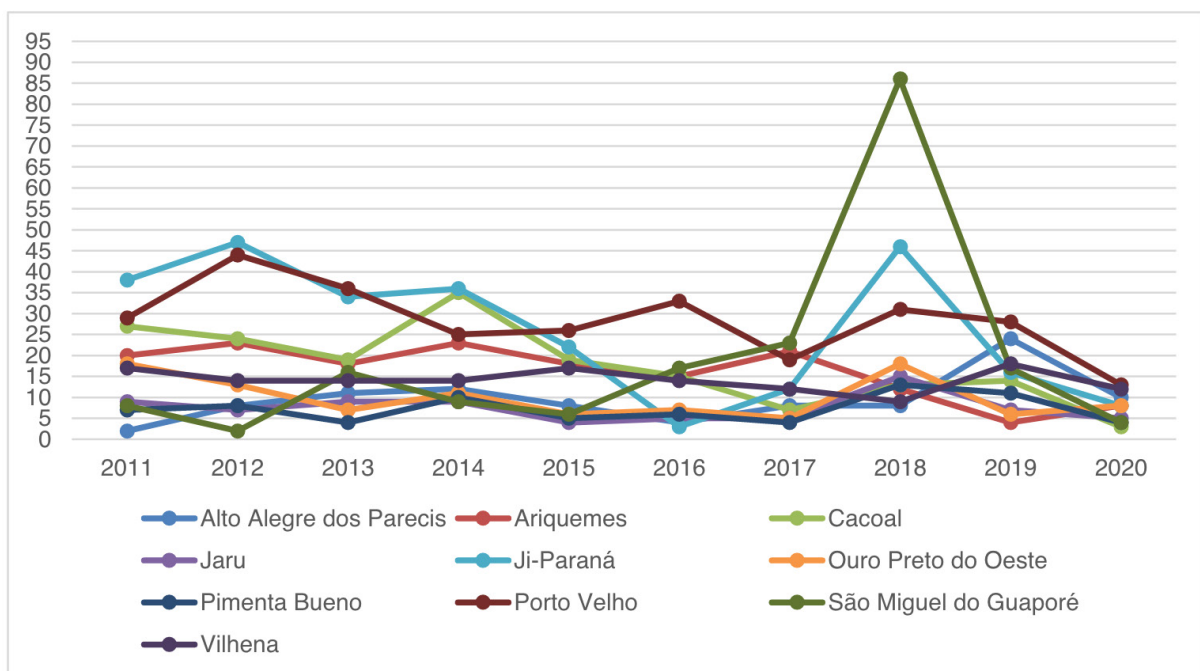


Figure 1 - Temporal evolution of the incidence of new cases of leprosy in females reported by the municipalities of Rondônia with more than 150 total new cases in the period from 2011 to 2020. Source: State Health Surveillance Agency of Rondônia – AGEVISA.

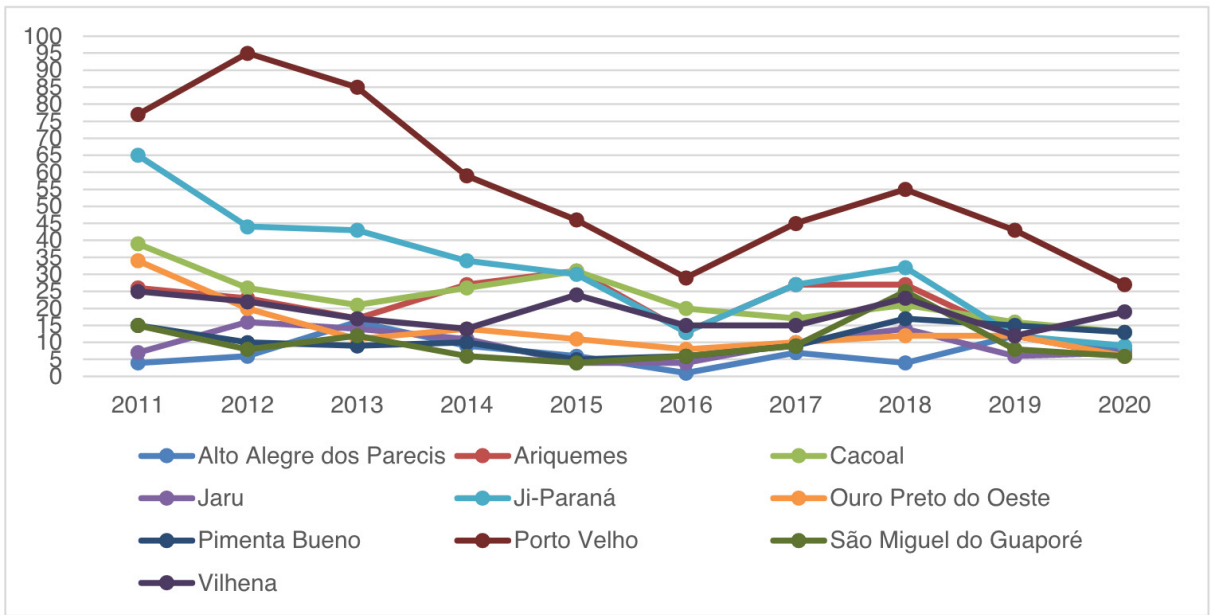


Figure 2 - Time evolution of the incidence of new cases of leprosy in males reported by the municipalities of Rondônia with more than 150 total cases in the period from 2011 to 2020. Source: State Health Surveillance Agency of Rondônia – AGEVISA.

Cities	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Accumulated incidence
Porto Velho	44	46	52	31	24	21	20	19	12	4	273
Ji-Paraná	50	49	30	22	9	2	7	16	3	4	192
Ariquemes	24	27	18	24	25	17	14	7	2	2	160
Cacoal	32	15	12	23	14	11	8	7	8	1	131
Vilhena	16	8	9	4	15	6	5	3	8	2	76
Ouro Preto do Oeste	23	15	6	5	4	4	1	5	3	1	67
Alto Alegre dos Parecís	3	4	6	11	7	2	10	3	7	4	57
Jarú	6	4	9	3	4	2	1	1	2	2	34
Pimenta Bueno	0	3	0	5	1	0	0	6	1	1	17
São Miguel do Guaporé	2	3	2	0	0	0	0	0	2	0	9

Table 5 - New cases of leprosy in the Paucibacillary form notified by the municipalities of Rondônia with more than 150 total new cases in the period from 2011 to 2020. Source: State Health Surveillance Agency of Rondônia – AGEVISA.

Cities	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Accumulated incidence
Porto Velho	62	93	69	53	48	41	44	67	59	36	572
Ji-Paraná	53	42	47	48	43	14	32	62	25	13	379
São Miguel do Guaporé	21	7	26	15	10	23	32	111	23	10	278
Cacoal	34	35	28	38	36	24	16	27	22	15	275
Vilhena	26	28	22	24	26	23	22	29	22	29	251
Ariquemes	22	19	17	26	24	11	34	32	14	12	211
Ouro Preto do Oeste	29	18	12	20	13	11	14	25	15	13	170
Pimenta Bueno	22	15	13	15	9	12	13	24	25	16	164
Jaru	10	19	14	17	4	7	14	28	11	10	134
Alto Alegre dos Parecis	3	10	21	10	7	3	5	9	29	14	111

Table 6 - New Cases of Leprosy in the Multibacillary form notified by the municipalities of Rondônia with more than 150 total new cases in the period from 2011 to 2020. Source: State Health Surveillance Agency of Rondônia – AGEVISA.

Cities	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Accumulated incidence
Porto Velho	83	114	101	69	58	49	59	71	50	6	660
Ji-Paraná	94	80	71	63	47	13	35	65	20	5	493
Cacoal	63	47	36	56	47	30	21	27	23	2	352
Ariquemes	41	44	31	49	48	27	39	33	12	4	328
São Miguel do Guaporé	22	8	25	12	8	21	31	98	25	5	255
Vilhena	35	31	25	24	36	26	25	29	15	1	247
Ouro Preto do Oeste	49	32	18	24	17	15	15	28	16	4	218
Pimenta Bueno	18	18	13	19	9	10	12	26	21	2	148
Alto Alegre dos Parecis	5	13	25	19	13	5	15	11	25	3	134
Jaru	13	19	17	17	7	8	13	24	10	2	130

Table 7 - New cured leprosy cases notified by the municipalities of Rondônia with more than 150 total new cases in the period from 2011 to 2020. Source: State Health Surveillance Agency of Rondônia – AGEVISA.

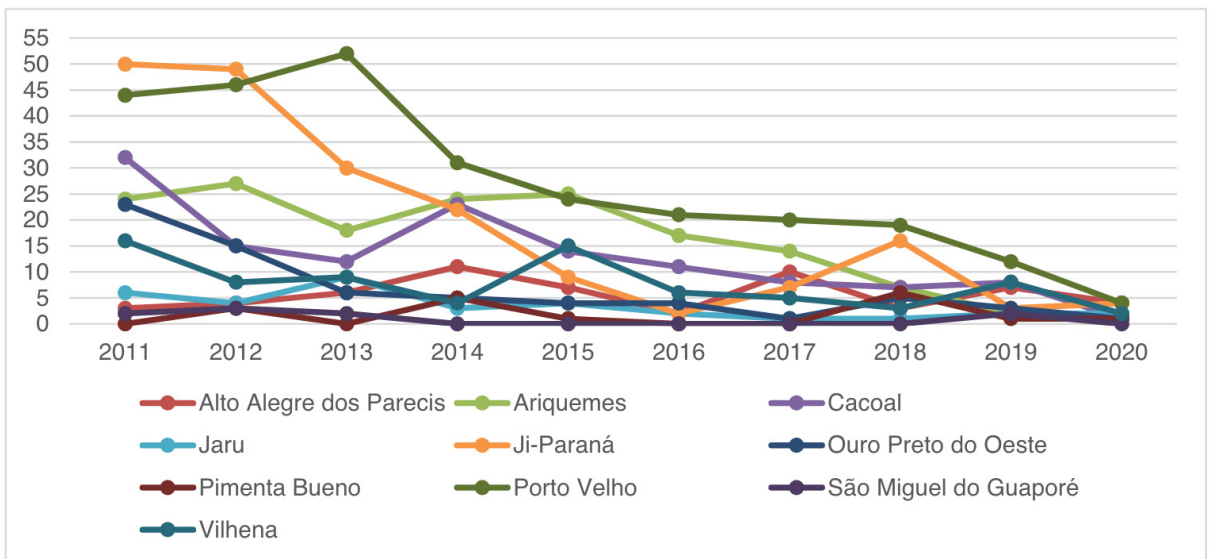


Figure 3 - Time evolution of the incidence of new cases of Paucibacillary Leprosy notified by the municipalities of Rondônia with more than 150 total new cases in the period from 2011 to 2020. Source: State Health Surveillance Agency of Rondônia – AGEVISA.

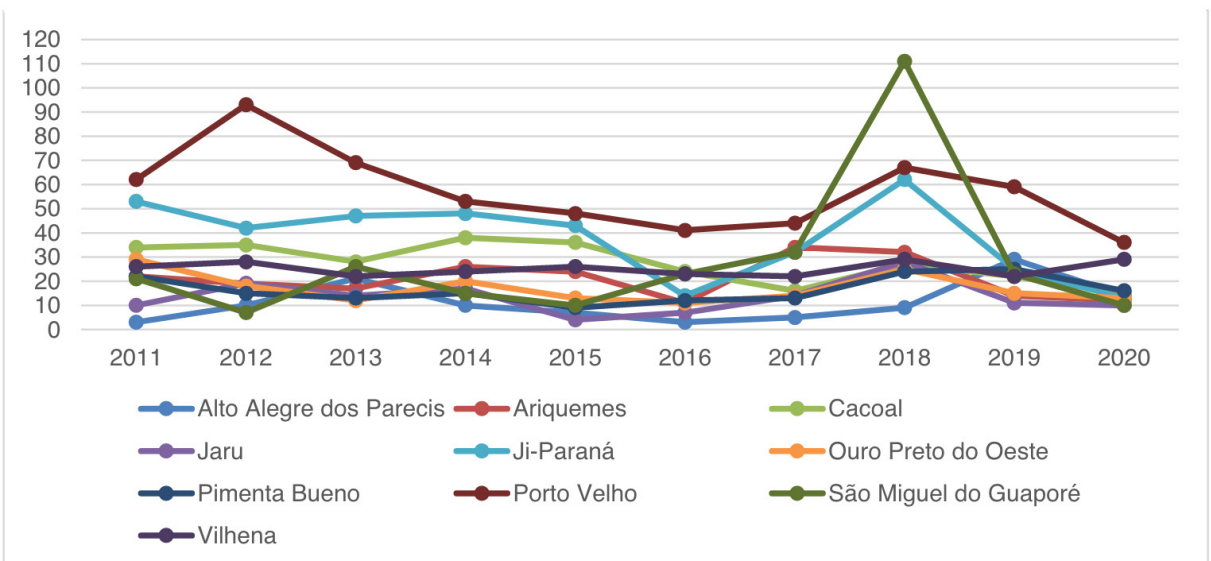


Figure 4 - Temporal evolution of the incidence of new cases of Multibacillary Leprosy notified by the municipalities of Rondônia with more than 150 total new cases in the period from 2011 to 2020. Source: State Health Surveillance Agency of Rondônia – AGEVISA.

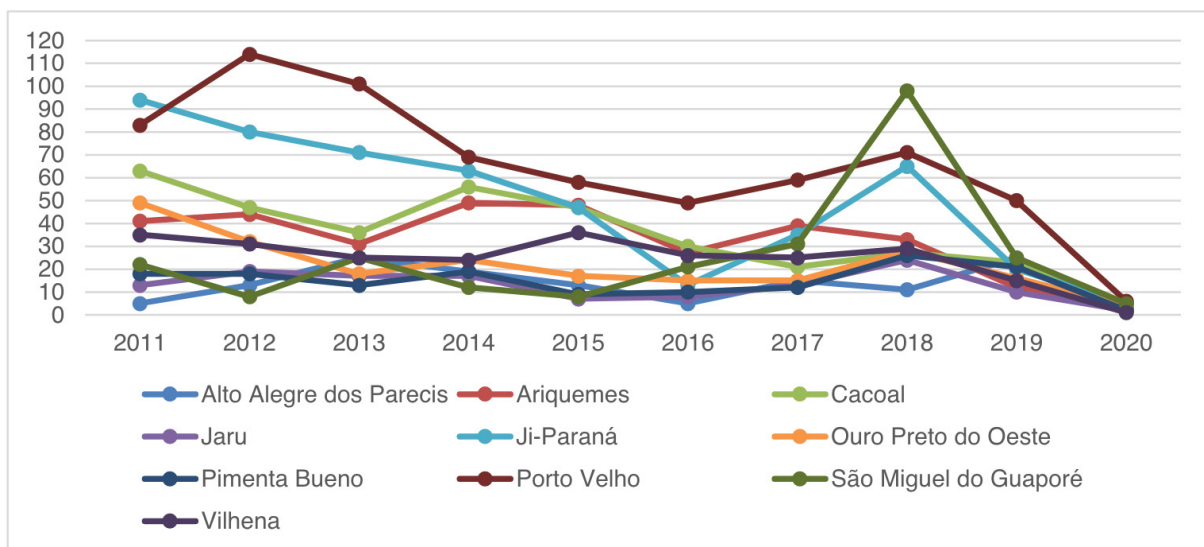


Figure 5 - Time evolution of the incidence of new Cured Leprosy cases notified by the municipalities of Rondônia with more than 150 total new cases in the period from 2011 to 2020. Source: State Health Surveillance Agency of Rondônia – AGEVISA.

as “Gléia”, these “globias” are typically found in the leprosy. Hansen’s Bacillus presents a capsular coating that can be visualized by physical-chemical means (dyes, chloroform, heat), this capsule is extremely important, since the bacillary integrity also depends on the capsular integrity, this way it is possible to study therapeutic approaches directed to this bacillary coating capsule. The bacillus is strongly stained by Fuchsin, which makes it acquire a red tone that is not lost even by the action of alcohol and acids, which is why the bacillus is called Alcohol-Acid Resistant. It is stained by the Ziehl-Nielsen method being a gram-positive bacterium. *Mycobacterium leprae* is an agent that has high infectivity, however its pathogenicity is low, that is, it infects a lot but few infected people get sick. Humans are recognized as the only source of infection (reservoir), but naturally infected animals have already been identified. (VERONESI; FOCACCIA, 2015).

The sick individual eliminates the bacillus in the environment through the upper airways,

this way the non-sick individual is likely to be infected also through the upper airways through direct contact with the etiological agent, that is, it is necessary that a direct contact with a sick and untreated individual for infection to occur. (SILVEIRA et al., 2014).

The appearance of the manifestations of the disease is varied, depending directly on the result of the host/parasite relationship, and may remain in incubation for 2 to 7 years. Leprosy affects people of both sexes and of all ages, however, in most regions of the world the incidence is higher in men compared to women, however its manifestation is very rare in children. This fact is evidenced in the results that were obtained, so that the number of men infected by the disease is greater than in women, in the same way that children under 15 years old also show a lower number of notifications as shown in the results. However, it is clear that individual conditions and other factors such as the level of endemicity in the locality, socioeconomic conditions of life and poor health, in addition to the accumulation

of people residing in the same dwelling, contribute to the increased risk of becoming ill. In addition, it is important to point out the data obtained through this research, so that a greater number of multibacillary cases is observed, being 2545, on the other hand 1012 reported cases of paubacillary. (ELIONENAI et al., 2014).

Some people when they get sick will demonstrate resistance to leprosy, these cases are called "Paucibacillary" (PB), that is, in this case the individual harbors a small number of bacilli, thus being insufficient to infect other people, paucibacillary individuals are not considered important sources of propagation and can even heal spontaneously. On the other hand, there is a smaller number of people who will not show resistance to Hansen's Bacillus, so the bacillus will multiply in your body and will pass to the outside through the upper airways. It is important to point out that as soon as the individual starts his polychemotherapeutic treatment, his bacillary load will begin to reduce rapidly, so this individual will become unable to transmit the bacillus and consequently infect other people. The appearance of signs of leprosy are polymorphic, with neurocutaneous involvement being more evident. Furthermore, in advanced multibacillary forms, the involvement can be systemic. There are several signs and symptoms indicative of leprosy and how to identify it and for each classification of the disease the signs and symptoms manifest themselves in different ways. We can mark leprosy as a disease of double involvement, that is, dermatoneurological. And if we have a striking sign to highlight in leprosy, this is, without a doubt, the loss of sensitivity in the areas affected by the lesions, which is the main difference between the lesion of leprosy and other dermatological diseases. However, other main manifestations more common in the daily clinic are: sensitive to heat, touch or

pain; the individual may be burned or injured without realizing it, so that tingling, shocks, and cramps progress to numbness; In the area of the skin with hypochromic, brownish or reddish spots, with changes in sensitivity in the region of the lesions or in other areas innervated by peripheral nerves; The patient may have papules, tubercles, and nodules that are usually asymptomatic; Localized or diffuse hair loss, the main one being madorosis; pain, shock, and/or thickening of peripheral nerves; decrease or loss of strength in the muscles innervated by these nerves, mainly in the upper and lower limbs and sometimes in the eyelids; edema of hands and feet, with cyanosis and dryness of the skin; fever and arthralgia, associated with painful lumps, of sudden onset; dryness; sensation of sand in the eyes and numb spots, of sudden onset, with pain in the ulnar, peroneal and posterior tibial nerves. (MINISTRY OF HEALTH, 2002).

As the nerve disease goes untreated and progresses, nerve damage manifests and will change the sensitivity of the innervated area, leading to disability and deformity. Nerves may appear thickened and painful in the innervated areas (eyes, hands and feet) have decreased sensitivity and innervated muscles have reduced strength. (MINISTRY OF HEALTH, 2018).

As for the treatment of leprosy, it is essential to highlight that due to this difficulty in diagnosing the disease as well as differentiating paubacillary from multibacillary, the treatment has changed according to the new guidelines of the Ministry of Health. From this, the incidence of new cured cases was analyzed as being lower than the new cases reported, we can say that it may have been due to poor adherence to treatment or the diagnostic error that led to inadequate treatment. Thus, the beginning of the treatment of the old protocol advised that it was necessary to classify as paubacillary

(up to 5 lesions) or multibacillary (6 or more skin lesions). Paubacillary patients would receive treatment with Rifampicin and Dapsone and multibacillary patients with Rifampicin, Dapsone and Clofazimine. However, as leprosy is often treated by a general practitioner, misclassification was common. Thus, the possibility of performing the treatment with 3 drugs for pauci or multibacillary patients was studied. After data from studies such as UMDT-CT-BR that evaluated the effectiveness of the uniform regimen with 3 drugs, the Ministry of Health started to include Clofazimine in the treatment regimen for paubacillary leprosy. Therefore, all patients diagnosed with leprosy as of July 1, 2021 must receive treatment with Rifampicin, Dapsone and Clofazimine regardless of the amount of lesions. Patients diagnosed with paucibacillary leprosy from now on, the duration of treatment is six months, and for multibacillary leprosy the treatment is 12 months. (MINISTRY OF HEALTH, 2021).

After data from a study such as the UMDT-CT-BR that evaluated the effectiveness (phase 4 study) of the uniform multidrug regimen [Dapsone + Rifampicin + Clofazimine for six months (U-MDT)] for PB and MB leprosy patients compared with the regular multidrug regimen [Dapsone + Rifampicin for 6 months (R-MDT PB)] in PB patients and [Dapsone + Rifampicin + Clofazimine for 12 months (R-MDT MB)] in MB patients. 753 patients were recruited. Of these, 78.9% (594) were MB and 47.4% (282/594) had a bacilloscopic index (BI) equal to or greater than 3. This study concluded that the effectiveness found would bring immense benefit to most patients who are treated in the Primary Health Care (PHC) network in our country. Considering that PHC in Brazil diagnoses and treats 70% of reported cases, there is a low availability of bacilloscopy, insufficient accuracy of

health professionals in the diagnosis and classification of leprosy, in addition to the high turnover of professionals. These factors can contribute to misdiagnosis and classification and MB patients can be erroneously treated as PB. Therefore, the unification of leprosy treatment using the three drugs also makes it possible to equate this problem. Clofazimine is not primarily responsible for serious adverse reactions to the treatment of leprosy, and its addition to the treatment of a PB patient did not change the safety of the treatment, nor the impact on satisfaction with the treatment, nor on adherence with interruption of the same, considering its already known use at 12 months for MB and studies that have already compared adverse effects with these regimens. (BRAZILIAN SOCIETY OF DERMATOLOGY, 2021).

Leprosy is a chronic disease, with an insidious evolution, but the reactions happen when there is “stress” of the patient’s immune system, as a response to any systemic inflammatory or infectious condition. When this occurs, they manifest in the form of acute phenomena known as leprosy reactions. They occur mainly in MB patients, as there is some deficit in cellular immunity against the bacillus, but they can also occur in PB patients. In addition, these manifestations may occur before, during or after treatment of the disease. The main types of reaction are type 1 (RI) and type 2 (RII) reactions. The first happens more frequently in inter-polar patients, in the form of new lesions such as erythematous plaques or spots, old lesions tend to become more swollen and change color, may or may not be associated with neuritis, with peripheral nerve thickening and pain. The second occurs mainly in cases of polar Virchowian form or the spectra closer to this pole. It is a reaction mediated by immune complexes and its most common clinical presentation is Erythema Nodosum Leprosum (ENL), it

is configured with subcutaneous and painful nodular lesions, which may appear together with systemic symptoms such as fever, malaise, neuritis and joint pain. (VERONESI; FOCACCIA, 2015).

FINAL CONSIDERATIONS

The analysis of data on the notification of new cases of leprosy in Rondônia showed a reduction over the years of new cases of the disease, which can be explained by advances in health services in identifying and treating the disease effectively, preventing its spread. of the bacillus. There was a greater number of cases in males compared to females, which corroborates the known epidemiology. The analysis showed a greater number of notifications of multibacillary cases, correlating with the fact that these

individuals are more symptomatic and spread the bacillus more when compared to paucibacillary individuals. The municipality of São Miguel do Guaporé had a peak incidence in 2018, mainly for females, which has not elucidated the cause. However, in 2020 there was an important reduction in all municipalities, which may not correspond precisely to reality due to the impact of the Covid-19 pandemic.

Studies like this help to clarify the epidemiology of leprosy in Brazil, since they relate knowledge about the disease and its practical applications, generating an impact on the lives of hundreds of people who are exposed to the contagion and who are undergoing treatment, being able to improve the techniques management and reception of the same by professionals.

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