

Leprosy: ancient disease remains a public health problem nowadays*

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Abstract: Despite being an ancient disease, leprosy remains a public health problem in several countries - particularly in India, Brazil and Indonesia. The current operational guidelines emphasize the evaluation of disability from the time of diagnosis and stipulate as fundamental principles for disease control: early detection and proper treatment. Continued efforts are needed to establish and improve quality leprosy services. A qualified primary care network that is integrated into specialized service and the development of educational activities are part of the arsenal in the fight against the disease, considered neglected and stigmatizing.

Keywords: Epidemiology; Leprosy; Public health

There are leprosy reports since 4300 years before Christ in Egypt, and reports of approximately 4000 years in India, China and Japan. The disease landed in Brazil with the first Portuguese settlers and its main expansion factor in the country was the slave trade.¹

The latest epidemiological analysis published by the World Health Organization (WHO) obtained data from 102 countries for the year 2013. It showed that Southeast Asia and the Americas remain the areas most affected by the disease, with a prevalence of 8.38 and 3.78 cases per 10 000 inhabitants, respectively.² These numbers are still worrying, since WHO, in 1991, has set as a goal to eliminate the disease as a public health problem a prevalence lower than 1 case per 10 000 inhabitants.³ New case detection rate in India, Brazil and Indonesia was 126 913, 31 044 and 16 856, respectively. These three countries, which currently are the most endemic, account for approximately 81% of new cases worldwide.²

In Brazil, during the same period, the variables found among new cases were: 66% in men, 64% defined as multibacillary, 7.7% in individuals under 15 years old, and the cure rate was 85.1%

for paucibacillary and 80.9% for multibacillary types. About 6.4% of individuals already presented grade 2 disabilities.² The evaluation of Brazil between 2011 and 2013 demonstrates 10 areas with the highest endemicity, cited by WHO as "clusters", which are located mainly in the states of Mato Grosso, Pará, Maranhão, Tocantins, Goiás, Rondônia and Bahia. These areas, although they represent 14% of the Brazilian population, accounted for 44% of cases diagnosed in 2013.⁴ Thus, the priority municipalities were set for optimizing actions.⁵

It is important to confirm that the detection rate of new cases tends to be lower than the actual rate of incidence, since some leprosy cases are undiagnosed. Therefore, even if in a given territory there is no recorded case, there may be individuals with leprosy without treatment.⁶

One of the latest operational guidelines focus is to enhance the disability assessment at diagnosis to allow conducting early actions, considered essential for a quality service. The degree of disability in leprosy ranges from 0 to 2, and the degree of each eye,

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hand and foot must be determined. The highest degree assigned will be considered the degree of incapacity of the patient. Grade 0 means no disability, grade 1 corresponds to the loss of sensation in the hands and/or feet, and grade 2 corresponds to the presence of a visible damage or disability.⁶

Worldwide, it is estimated that more than three million people have some degree of disability, and a feature that further intensifies this problem is that the economically active age group is the most affected by leprosy.^{6,7} It is known that, mostly, disabilities and deformations are related to the peripheral nervous system, which can occur before, during, or after disease treatment.⁸ The impact on quality of life of affected individuals when they develop a disability is very important because of the limitation in daily activities, psychological commitment and social prejudice.⁷ This social stigma related to the disease, still present nowadays, indicates the need to strengthen educational actions directed to this end.⁶

The fundamental principles set out to control the disease are early detection and specific treatment with multidrug therapy. Case detection methods can be classified into passive or active. Passive detection is represented by spontaneous demand of the population to a health service or when a suspected case is referred by another unit to confirm the diagnosis. Currently, the promotion of spontaneous demand is fundamental. Thus, national programs promote initiatives for awareness of the public in general about the signs and symptoms of the disease and have encouraged individuals with suspicious alterations to seek health unities closer to their residence.⁷

Active detection is represented by systematic search of patients through research of contacts, evaluation of people who spontaneously require the health unit's services for other reasons and evaluation of specific groups.^{7,9} This method is also important, but should be well prepared and well directed, especially when smaller-scale campaigns are considered.⁶ Epidemiological surveillance activities to search contactees and case-source identification is essential when there is a diagnosis of leprosy in children under 15 years old because it reflects an early and intense exposure, with high bacterial load (important indicator of the prevalence of the disease in the general population).¹⁰ It is essential that there is an effective training of the professionals involved, as this is a way to intensify case detection and facilitate early treatment.¹⁰ The improvement of these actions will be reflected in cure rates, whose current goal is to reach the 90% rate in cohorts of new cases.⁵

Despite being an ancient disease, it is still considered a public health problem in many countries.^{1,2} To intensify the reduction of the disease burden unified and continuous efforts are necessary. It is hoped that all affected communities have access to quality leprosy services, according to the principles of equity and social justice.⁶ It is significant that primary care is able to conduct most cases, in addition to efficient integration to a specialized service for referral of difficult or complicated cases.⁶ Thus, intersectionality and specific integrality to the management of leprosy should be in full operation. □

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