



Epidemiological Characteristics of Leishmaniasis

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Editorial

A protozoan of the genus *Leishmania* spp., intracellular parasites of the reticuloendothelial system of mammals, with more than 20 different species causes leishmaniasis by means of the bite of female hematophagous dipterous insects. It is a chronic anthroponosis of the tropical and subtropical regions, produced by protozoa belonging to the Phylum *Sarcomastigophora*, order *Kinetoplastida*, family *Trypanosomatidae* and Genus *Leishmania*, these parasites with great dimorphism and antigenic differences, transmitted by blood-sucking insects (Diptera: Psychodiidae), in more than 90 species, of the subgenera *Phlebotomus* and *Lutzomyia* [1-10].

A total of 350 million people are at risk of contracting leishmaniasis, which is endemic in 88 countries, 22 in the new world and 66 in the old, except Australia and Oceania. It is estimated that leishmaniasis produces a global disease burden of 2.34 million adjusted lives according to disability, of more than 1.80 years of life lost due to premature mortality. In addition, from the clinical point of view, the forms of presentation are divided into two major groups: tegumentary and visceral leishmaniasis [1-10].

It is a group of diseases typically from rural areas, although recently cases have been reported in urban areas of cities, attributable to migration driven by socioeconomic problems from rural to urban areas and by the reforestation caused by urban planning. Furthermore, the situation is aggravated because none of the diagnostic methods (necessary for the confirmation of cases and follow-up of the treatment) available has the sensitivity, specificity, simplicity and low desirable cost [7].

Despite the impact on public health of leishmaniasis in many countries where it is endemic, with frequent epidemic outbreaks, its control is postponed and under notification is common, in addition to the heterogeneity in the procedures and methods used in the research that makes it difficult to compare results, there is also a shortage of trained personnel and for the timely provision of medicines [7], all of this in total adherence to what Llanos-Cuenca [11] believes when it states that "it is a disease that has attracted attention and has captivated many scientists despite being a neglected disease and receiving little financial support for its study and control at an international level. Thus, there are important contributions in the parasitological, immunological, genetic and diagnostic knowledge, although limited in therapeutic, epidemiology, control and in the social determinants of the disease. As a consequence, there is no correlation between scientific progress and the well-being of affected populations living in endemic areas, usually poor, with limited access to health services and, therefore, without receiving timely treatment. In the real life of endemic communities, the situation of cutaneous leishmaniasis has not changed in the last century" (p 230).

"On the other hand, in the most affected countries, and especially in the endemic areas, there is a gap between current knowledge and the way in which the disease is managed. The absence of the parasitological diagnosis and empirical treatments are frequent in these areas, not only due to lack of resources, but also due to a limited knowledge of those responsible for care. To this is added the low priority of the Ministries of Health in the control of leishmaniasis, which continue with the same strategies as 50 years ago; they act only in outbreaks when they have political visibility, with preventive measures almost absent, although there is control information for some situations" (p.230).

As you can see the leishmaniasis, its control is really complex, its epidemiological behavior is also due to ecological and demographic changes, in which any novelty at some point of the epidemiological triangle formed by humans, reservoirs and transmitters translates into an increase in the number of people infected, this is particularly interesting, since most of the environmental factors that influence the epidemiology of leishmaniasis are still poorly understood, or in the worst cases are unknown, however, it is known that parasites and their transmitters can adapt to ecological changes such as deforestation and urbanization [12,13].

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According to PAHO [7], in general terms, it is necessary to invigorate and sustain national programs for the prevention of leishmaniasis and even incorporate them into the economic, social and political agreements organizations of the regions; that in countries with a high risk of transmission the epidemiological surveillance system is strengthened, which is crucial for regional and central decision-making; and that it is agreed with the support of PAHO/WHO the standardization of procedures, methods and diagnostic criteria in humans and animals.

Also for the control of leishmaniasis, PAHO recommends streamlining and making more efficient the procedures for the acquisition of medicines, as well as requesting that countries evaluate alternative treatments against leishmaniasis, under strict compliance with national and international bioethical standards, and likewise, that technical cooperation between neighboring countries and the rest of the world be encouraged or promoted, and particularly that countries declare leishmaniasis a notifiable disease, and that health promotion strategies be applied at the community level [7,14,15].

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