

*José Eduardo Tolezano*¹

THE PRESENT AND FUTURE OF LEISHMANIASIS

From the first half of the 1980s, leishmaniasis, both cutaneous (CL) and, in particular, the visceral leishmaniasis (VL), returned to be one of the main challenges of public health services in several parts of the world.

World Health Organization (WHO) estimates indicate that between 900,000 and 1.3 million of new cases occur each year, with 20 and 30 thousand deaths. However, there is strong evidence that these figures underestimate the real extent of the problem due to the lack of notification and difficulties to access medical services and reach diagnoses in many regions of poorer countries, including Brazil.

Leishmaniasis falls within the group of neglected diseases due to its endemic nature, because it affects poorer populations or those that are underserved by health services and owing to a dearth of investment in research, development, innovation and the production of drugs for treatment and control.

Brazil occupies a prominent position as it has one of the highest rates for both LT and VL cases. According to the Ministry of Health, 655,695 cases of CL were reported from 1990 to 2014, with autochthonous transmission in all states. In the same period, 78,433 cases of VL were notified with autochthonous cases being reported in 21 of the 27 Brazilian states. The fatality rate due to VL has remained at around 7.0%.

The spread of leishmaniasis in the world is a result of continued human actions in the environment, leading to the transformation of natural ecotopes, which enabled the emergence of previously unknown

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transmission circumstances and environments. These conditions include extended periods of drought and hunger, the migration of large numbers of people as a consequence of wars and famine, immunosuppression due to viral infections and drugs, large property developments in rural areas, and the ease and speed of travel around the globe for business or leisure activities.

In Brazil, both for CL and VL, these transformations have resulted in the arrival and establishment of transmission foci in the outskirts of towns, and even in the center of the urban areas of medium and large cities, including several state capitals.

Although much information have been accumulated in relation to leishmaniasis, there are still many doubts, questions and gaps in our knowledge, development and innovation impeding effective control of these parasitic diseases.

From the present to the future, we still need to answer questions about the feasibility of producing

¹ Prof. José Eduardo Tolezano Ph.D. Scientific researcher - Technical Director Center of Parasitology and Mycology Instituto Adolfo Lutz.

effective vaccines to prevent canine VL, the main source of infection and perpetuation of the transmission of the disease to humans. Furthermore, new and more sensitive tests with specific protocols for the laboratory diagnosis of CL and VL, both in humans and animals, are needed. In addition, we need to develop treatment alternatives with less toxic drugs, alternative protocols to control the sand fly vector, and the development of new strategies to improve

health information, education and communication in order to alert managers and technicians in health services and even the general population about this issue. Finally, political definition and commitment is required from the authorities and governments to prioritize attention and funding for surveillance and control measures, and for the promotion of the research necessary to address these deficits.