HIV/Leishmania coinfection: a serious public health problem

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I wish to congratulate *Revista de Saúde Pública* on its Edition 42 (supplement 1), which brought readers a wealth of information about aspects that are central to the national enquiry into HIV infection. This will undoubtedly support policies that are more appropriate to the health needs of the Brazilian population. In this sense, HIV/*Leishmania* coinfection is equally important within the public health sphere.

As if the immunological sequels unleashed by the HIV virus were not enough, infection by *Leishmania* protozoas, in association with the viral infection, emerges as a challenging field. Recent data about the outbreaks of AIDS and leishmaniasis coinfection, especially visceral leishmaniasis (VL), have shown an unexpected interaction between the diseases.

HIV infection affects millions of people. It is considered a public health challenge, not only because of the harm caused to health but also because of the occurrence of opportunistic infections that develop in parallel with the AIDS. VL, on the other hand, is also considered a serious public health problem. If it is not treated, it is accompanied by a generalized spreading of the parasites in the host, a fact that is responsible for significant mortality indices.

The number of cases of HIV/*Leishmania* coinfection has increased, meaning that the association between the two infections is considered an emerging problem. In countries in Southern Europe, for example, the situation is significant. More than 70% of the cases of VL in adults are related to AIDS and 9% of all patients with AIDS suffer from recently-acquired VL.

With regard to cutaneous leishmaniasis (CL), the most common and mildest variation, data from literature have also indicated the appearance of cases of coinfection. The difference is that in the case of HIV-positive the anti-retroviral treatment "strengthens" the immune system and ends up reducing the effects of CL, a fact we do not see in VL, where the cocktail seems not to have much influence, either for controlling or preventing infection by the parasite.

The epidemiological impact of coinfection is so significant that the World Health Organization is considering introducing VL as an AIDS indicator-disease. This association between the diseases is recent and there is a growing number of cases in Brazil and worldwide, above all in the Mediterranean region of Europe. In Brazil, we have observed a pattern of infections overlapping, which is characterized by the "ruralization" of AIDS and the "urbanization" of VL. This indicates the emergence of the parasitic disease as an important opportunistic infection of HIV.

In this sense, there is an urgent need to broaden the approach to HIV/*Leishmania* coinfection, particularly as far as extending our knowledge of the parasite/host relationship and of the therapy and development of vaccines against the disease. In the case of VL, current treatment is based on chemotherapy, which has presented difficulties relating to administration, high financial cost or low efficiency, mainly due to the appearance of parasites that are resistant to medication. There is still no effective vaccine against the illness.

So, given the various implications attributed to infection by HIV/*Leishmania* for the health area, and the fact that the parasite/host relationship only started being studied in the last century, it is possible that the illnesses are even more correlated with the quality of life of the population. Studies into the "VL and AIDS" relationship are important, once they may help overcome many challenges of the diseases, above all those related to maintaining and improving people's quality of life and promoting their health.

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