

Visceral Leishmaniasis and HIV co-infection: Epidemiological data in the Pernambuco - Bahia health network, 2007-2022

Helielton Júnior Martins Polesca¹, Josué Silva Aguiar², Luiz Felipe da Cruz Couto³, César Augusto da Silva⁴.

ABSTRACT

Visceral Leishmaniasis (VL) is a chronic systemic infection caused by the protozoan *Leishmania*, transmitted by the bite of the *Lutzomyia longipalpis* mosquito. VL-HIV co-infection, which results from the combination with the human immunodeficiency virus, is considered an emerging disease. This study presents epidemiological data on VL-HIV co-infection in the PEBA Network, from 2007 to 2022, based on records from the Notifiable Diseases Information System (SINAN). Sixty-two confirmed cases of co-infection were analyzed, most of them in men, concentrated mainly in Pernambuco and Bahia. The Juazeiro region (BA) led the way in terms of confirmed cases, followed by the Petrolina region (PE).

Keywords: Visceral Leishmaniasis, VL-HIV co-infection, Epidemiology, PEBA Health Network, Northeast Region.

INTRODUCTION

Visceral leishmaniasis is a chronic infection with systemic repercussions, caused by protozoa of the genus *Leishmania* and transmitted to humans mainly by the bite of *Lutzomyia longipalpis*, popularly known as straw mosquito¹.

The combination of infections caused by the human immunodeficiency virus (HIV) and the protozoan *Leishmania spp.* constitutes VL-HIV co-infection, which is considered an emerging disease worthy of attention².

In Brazil, the epidemiological distribution of co-infected individuals follows the risk groups for HIV/AIDS transmission, either by age group (close to 37 years of age) or by sex (91.9% in males)³.

In addition, according to the study by BARBOSA et al. (2013), the number of VL cases registered per year in the Northeast maintains a constant pattern, while the infection rate in HIV patients shows an upward increase, which implies a worse prognosis for the patients⁴.

¹ Graduating in Medicine
Institution: Federal University of Vale do São Francisco

² Graduating in Medicine
Institution: Federal University of Vale do São Francisco

³ Graduating in Medicine
Institution: Federal University of Vale do São Francisco

⁴ Doctor in Biological Sciences
Institution: Federal University of Vale do São Francisco



The objective of this study is to present epidemiological data on LV-HIV co-infection in the Interstate Health Care Network of the Middle São Francisco Valley (PEBA Network).

MATERIALS AND METHODS

The study has a qualitative-quantitative approach, of a basic nature, with descriptive and explanatory highlights, through research to collect and analyze data on Visceral-HIV Leishmaniasis co-infection in the PEBA health network, in the period from 2007 to 2022. The 53 municipalities that are part of the PEBA network were included in the study, with data grouping into health regions. Data were obtained from the Notifiable Diseases Information System (SINAN), available at the Department of Informatics of the Unified Health System (DATASUS) of the Ministry of Health, according to the municipality of residence, the coverage area and the period studied.

To carry out the study, software such as Word® and Excel® were used, both for the systematization of the data and for the writing of texts and the preparation of graphs.

RESULTS

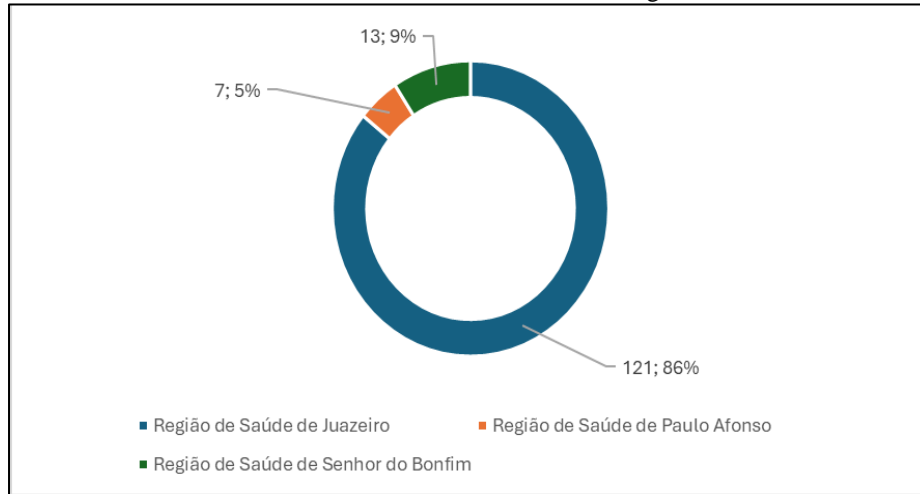
The data analyzed so far show, in users of the PEBA Network, regardless of race and age criteria, a total of 62 confirmed cases of VL-HIV co-infection in the time interval studied. Of these, 48 were registered in the state of Pernambuco and 14 in Bahia. On the other hand, the unknown/blank cases add up to 409 records, of which 141 in Bahia and 258 in Pernambuco.

In Bahia, the health region of Juazeiro led in confirmed cases of the double disease, totaling 14 cases, from 2007 to 2022. According to age group, of the 14 records, 8 (57.14%) were of patients aged between 20 and 39 years, 4 (28.57%) between 40 and 59 years, 1 (7.14%) between 10 and 14 years, and 1 (7.14%) between 60 and 64 years. Regarding the gender of the patients, of the 14 cases confirmed for co-infection, 12 (85.71%) were men and only 2 (14.28%) cases were women. In the region of Juazeiro, there were 121 reported cases with filling in for unknown co-infection, of which 83 (68.59%) were men and 38 (31.4%) were women. In the health region of Paulo Afonso, there were 7 records, of which 3 (42.85%) were men and 4 (57.14%) were women. Finally, the Senhor do Bonfim region, with 13 records, 7 (53.84%) men and 6 (46.15%) women (Figure 1).

In Pernambuco, the highest rate of recorded cases of LV-HIV co-infection was in the region of Petrolina, with a total of 39 cases, of which 48.71% in men and 51.28% in women, with the following distribution by age group: 2 (5.12%) cases in children under 1 year of age, 6 (15.38%) cases between 1-4 years, 4 (10.25%) cases between 5-9 years, 3 (7.69%) cases between 10-14 years of age, 10 (25.64%) cases between 20-39 years of age, and 14 (35.89%) cases between 40-59 years of age. Next, the health region of Ouricuri registered 5 cases, all men, 2 (40%) cases in patients aged 20 to 39 years and 3 (60%)

between 40 and 59 years. Finally, the Salgueiro region, with 4 cases, all men, 1 (25%) case between 15 and 19 years old and 3 (75%) cases between 20 and 39 years old.

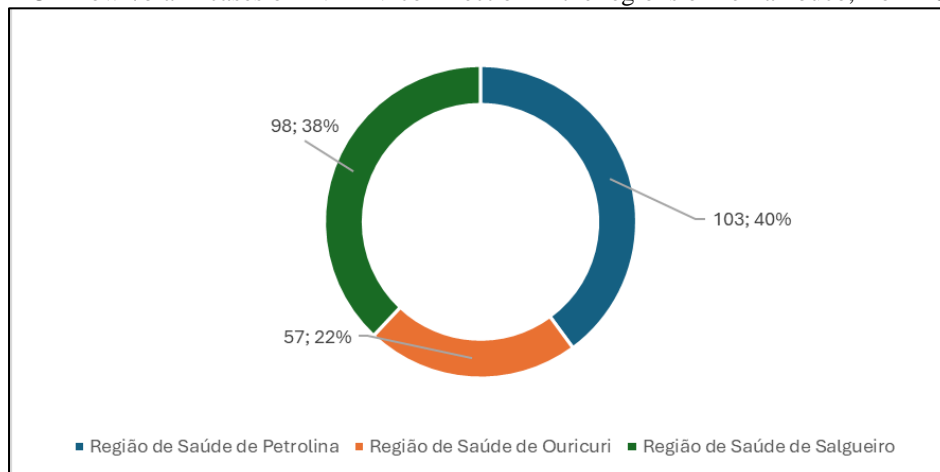
Figure 1 - Unknown/blank cases of VL-HIV co-infection in the regions of Bahia, from 2007-2022.



Source: Survey data

For cases of co-infection marked as unknown/white, the health region of Petrolina led with 103 cases, 66 (64.07%) men and 37 (35.92%) women, followed by the health region of Salgueiro, with 98 cases, 67 (68.36%) men and 31 (31.63%) women, and by the health region of Ouricuri, with a total of 57 cases, 28 (49.12%) were men and 29 (50.87%) were women (Figure 2).

Figure 2 - Unknown/blank cases of LV-HIV co-infection in the regions of Pernambuco, from 2007-2022.



Source: Survey data

Regarding the clinical evolution of patients co-infected with VL-HIV, in the area and period studied, there were 49 cases of cure for leishmaniasis, 11 in the State of Bahia and 38 in Pernambuco. In Bahia, 11 cures were recorded in the region of Juazeiro, 7 in the city of Juazeiro, 2 in Sento Sé, 1 in Canudos and 1 in Remanso. In Pernambuco, 30 cures for leishmaniasis were recorded in the region of



Petrolina, with 27 in the city of Petrolina, 2 in Cabrobó and 1 in Lagoa Grande. The rest of the cures were in the region of Salgueiro, with 4 cases in the city of Salgueiro, and in the region of Ouricuri, with 3 cures in the city of Ouricuri and 1 in Araripina.

Regarding the cases of deaths due to VL/HIV co-infection, in Bahia, there was only 1 case registered in the city of Juazeiro. In Pernambuco, there were 3 deaths, 2 in the city of Petrolina and 1 in the city of Bodocó. In addition, in Pernambuco there were 5 ignored/blank cases due to the clinical evolution, all registered in Petrolina. In Bahia there were no ignored/blank cases, but there was 1 abandonment in the city of Juazeiro.

FINAL THOUGHTS

In view of the data exposed, there is a regional quantitative variation in the records of VL-HIV co-infection, with higher records of co-infection in adult male patients. There were many ignored/blank records, which denounces an epidemiological opacity of the disease during the notification process, reducing clinical veracity, with neglect of the real number of infected. This has an impact on the development of public policies for health promotion, prevention and care assistance.



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