

**AN ANALYSIS OF
THE POPULATION'S
KNOWLEDGE
ABOUT VISCERAL
LEISHMANIASIS AT THE
ZONOSIS CENTER
IN JOÃO PESSOA,
PARAÍBA**

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Abstract: This is an epidemiological and descriptive study with a quantitative and qualitative character carried out in the city of João Pessoa-PB with 100 users who sought care at the Centro de Zoonoses in the months of October and November 2022. It aimed to evaluate the level of knowledge on Canine Visceral Leishmaniasis in the population assisted at the site. As a result, 68% of users are women with completed high school, most of whom live in the west and south of the city. 80% of the interviewees had already heard about the disease and recognized it as a zoonosis, also known as Kala-azar, as the majority referred. Regarding transmission, 58% of respondents said they knew how it is transmitted, and of these the majority replied that it occurs through the bite of a mosquito.

Keywords: Visceral leishmaniasis; zoonoses; single health.

INTRODUCTION

Canine Visceral Leishmaniasis (LVC) or kala-azar, as it is popularly known, is a chronic disease and can be classified as a zoonosis, that is, it is a pathology that can be transmitted to humans, and can lead to death when not treated properly. adequate (GONTIJO; MELO, 2004).

This pathology comes from the species of the genus *Leishmania*, which belongs to the *Leishmania donovani* complex, where, in Brazil, the main etiological agent causing the disease is *Leishmania chagasi* (GONTIJO; MELO, 2004). The agents are classified as trypanosomatid protozoa of the genus *Leishmania*, being an obligate intracellular parasite in cells, in the form of a flagellum (promastigote) found in the gastrointestinal tract of insect vectors and aflagellate (amastigote) in vertebrates, with *L. chagasi* being the most commonly found in patients positive for visceral leishmaniasis (GREENE, 2015).

VL can be presented in the form of “subclinical infection, self-limited or classic non-self-limited and severe disease” (GREENE, 2015). It is considered a chronic, asymptomatic or symptomatic disease, and the animal may show symptoms after a few months or even years after infection.

Domestic dogs have been gaining more and more visibility on the subject, since in urban areas they have been the main source of infections recorded, causing the occurrence of leishmaniasis infections in humans, with a higher incidence in dogs when compared to canids.

As the worldwide distribution of Canine Visceral Leishmaniasis is wide, with an estimated incidence of 500,000 new cases and 50,000 deaths each year in the world, with numbers clearly on the rise, according to Oliveira et al. (2010), is predominant in tropical and subtropical regions. In the Brazilian region, the disease affects more than 3,500 people annually and for each human affected, it is estimated that there are 200 infected dogs (BRASIL, 2020), with the Northeast being the most concentrated region.

GOAL

This research aimed to evaluate the level of knowledge about Canine Visceral Leishmaniasis of the population assisted at the Centro de Zoonoses in the city of João Pessoa, Paraíba. As well as identifying the epidemiological profile of the population that seeks the Zoonoses Center service, their prior knowledge about transmission, symptomatology and prevention.

Even more, it contributes to expanding the knowledge of tutors, demystifying and covering forms of prevention and care that they must have with their dogs.

METHODOLOGY

This is an epidemiological and descriptive

study with a quantitative and qualitative character carried out in the city of João Pessoa-PB, in which the target audience was 100 users who sought care at the Centro de Zoonoses in the months of October and November 2022.

The present study was carried out from Monday to Friday in the afternoon, in which data were collected through an interview using a simple online questionnaire with objective and open questions about Canine Visceral Leishmaniasis as instrument. This was developed by students of the extension project “Zoonoses and Unique Health” of the Veterinary Medicine course through the Google Forms platform, in which when approaching the user the purpose of the research was clarified, and shortly after the questions a brief explanation was given. on the topic to remove doubts.

The study was prepared in accordance with the ethical and legal assumptions of the Resolution of the National Health Council (CNS) 466/12, which deals with research with human beings. And then sent for approval by Plataforma Brasil.

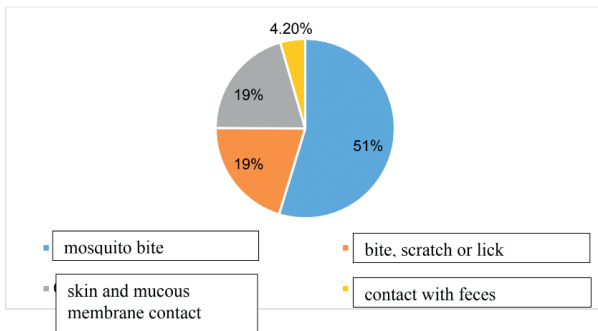
RESULTS

When analyzing the epidemiological profile of the interviewees, it was observed that 68% of the users who sought the service are women, with the majority aged between 31 and 40 years (28%), secondly aged over 50 years (27%). As for the level of education, 43.9% completed high school and 20.4% have a degree. The vast majority (39%) live in the west zone of the city, in neighborhoods such as Cruz das Armas and Alto do Mateus, and the south zone (35%), a region that belongs to the Zoonoses Center, such as Mangabeira, Bancários, Valentina and Gramme.

Regarding the number of animals at home, 55% of respondents said they had one to two, 26% had more than four, and in third place with 16% had three to four animals. Only 3%

of respondents reported not having animals at home. And among animal species, most users (37%) have canines, secondly felines (33%), a good part reported having both species (26%) and only 4 respondents have unconventional animals such as birds and reptiles.

As for knowledge regarding Visceral Leishmaniasis, 80% of respondents had heard about the disease and recognized the ability to be transmitted to humans, also known as Kala-azar, as most referred (47.5%). And in relation to transmission, 58% of respondents said they knew how it is transmitted, and of these the majority (51%) answered that it occurs through the bite of a mosquito, 19% responded by bite, scratch or lick, 19% by contact with skin or mucous membranes, and 4.2% responded through feces, as shown in Graph 1. There were other responses such as through feces, wounds, blood and unvaccinated animals.

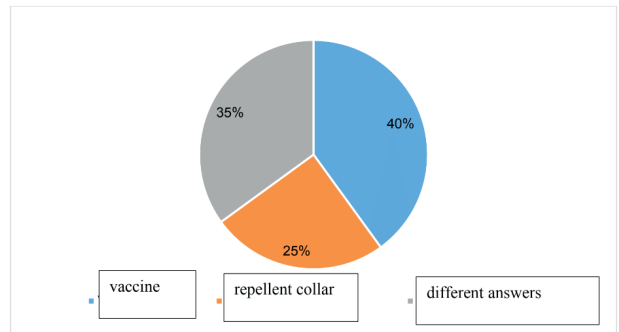


Graph 1 - Knowledge about CVL transmission

Regarding knowing how to recognize the animal affected by the disease, most denied with 56% of respondents. Of those who claimed to know (44%), they answered that the animal may have long nails, thinness, lack of appetite, wounds, even those that are difficult to heal, flaws and hair loss.

And in relation to forms of prevention, only 27% of respondents said they knew how to combat Visceral Leishmaniasis, of these, 40% responded vaccine, 25% responded

repellent collar, and other responses included routine appointments with the veterinarian, environmental care, combat to the mosquito and castration, shown in graph 2.



Graph 2 - Knowledge about prevention

And finally, only 27% of respondents have known someone or an animal affected by the disease. And as for the measures they would take when faced with their sick animal, the majority (65.3%) answered that they would take it to the veterinarian, 31.6% would take it to the city's Zoonoses Center and only 3.1% would medicate it themselves own.

DISCUSSION

Visceral Leishmaniasis was limited to rural areas and small urban locations, however, today, a considerable growth can be seen in urban areas (OPAS, 2018). In Brazil, few works on Visceral Leishmaniasis relate factors such as sex, race, coexistence with other species and age group as indicators of predisposition, although in Europe several works already show the importance of these variables in the development of the disease in naturally infected animals (SILVA et al,2016).

This pathology, as the name already mentions, affects the viscera, especially internal organs such as the liver, spleen, lymph nodes and bone marrow. Clinical manifestations may vary from patient to patient, however, in line with the literature, the most common initial clinical signs are dry coat, depigmentation, hair loss, onychogryphosis, small shallow

ulcers in the muzzle, tail, joints and ears. After that, the most common symptoms are fever, enlarged liver and spleen, pallor, hyporexia, cough and abdominal pain. It is noteworthy that skin lesions appear in an average of 50 to 90% of cases (GREENE, 2015).

Other symptoms are also frequent, in agreement with Oliveira et al. (2010) and Mello (2017), are weight loss, vomiting, diarrhea, muscle atrophy and anemia due to blood loss and red blood cell lysis. Some clinical studies cite a considerable frequency of leukopenia, hypoplasia and medullary depression as responsible for the reduction of leukocytes. According to Oliveira et al (2010), infections occur due to leukopenia and immunosuppression resulting from Leishmaniasis and the presence of comorbidities.

Liver manifestations, such as acute hepatitis and liver failure, are some of the complications that can cause death, due to the possible action of the parasite or due to the toxicity of the drugs used for the treatment. In more advanced cases, the animal may have joint problems such as difficulty moving and neurological problems, such as walking in circles, nystagmus, seizures and tetraparesis, even more, the toxicity of the drugs used can also accelerate neurological changes, going through stages of drowsiness until the coma. Another factor that contributes to morbidity and/or mortality is pancreatitis, associated with increased lipase (OLIVEIRA et al., 2010; MELLO, 2017).

Malnutrition is present in 32.7% of cases and is a considerable risk factor for the development of the symptomatic form of the disease, in which nutritional deficiency can affect the “phagocytic function, production of antibodies, cytokines, affinity of the antibody for the antigen” and the complete system that increases the probability of death (OLIVEIRA et al., 2010). Leishmaniasis can be directly

linked to other diseases, according to the Ministry of Health, 2003 apud Mello, 2017, 90% of cases, when untreated, evolve and lead to death.

The clinical signs of this zoonosis are quite common in other diseases, such as ehrlichiosis and babesiosis, in addition to the possibility of the patient being asymptomatic, thus making the clinical diagnosis very complex. However, it is extremely important to associate it with epidemiological data, such as habitat, geographic area and time of exposure to the vector (MELLO, 2017).

Given this, based on the theoretical framework, the precariousness of information about VL, according to Luiz et al. (2005), requires practices aimed at the democratization of attitudes that help control practices by adding different fronts and levels of knowledge.

By observing the forms of care for the researched animals, the importance of Social Policies to combat this disease by combating the vector is seen, making the population aware of the need for environmental cleaning, such as removing debris, collecting and draining water. regular rainfall. In addition, the planning of care campaigns for their pets, informing ways of prevention, transmission and clinical signs that must be forwarded to the veterinarian.

CONCLUSION

After the presented results, it is concluded that the lack of information about Visceral Leishmaniasis is still worrying, because in addition to endangering the tutor's health, increasing the levels of contamination and propagation of zoonosis, the number of animals abandoned by the owner also grows, in addition to number of morbidity, mortality and risk factors.

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