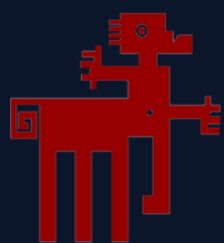


Canine leishmaniosis in Brazil: a challenge for underdeveloped countries

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INTRODUCTION

-Human **leishmaniosis** affects around **1 million people** over the year all around the world.

-**Brazil** is one of the six most affected countries by human leishmaniosis.

-Almost **70 species** of mammals act as *Leishmania spp* **reservoirs**, being the **dog** one of the most important among all of them.

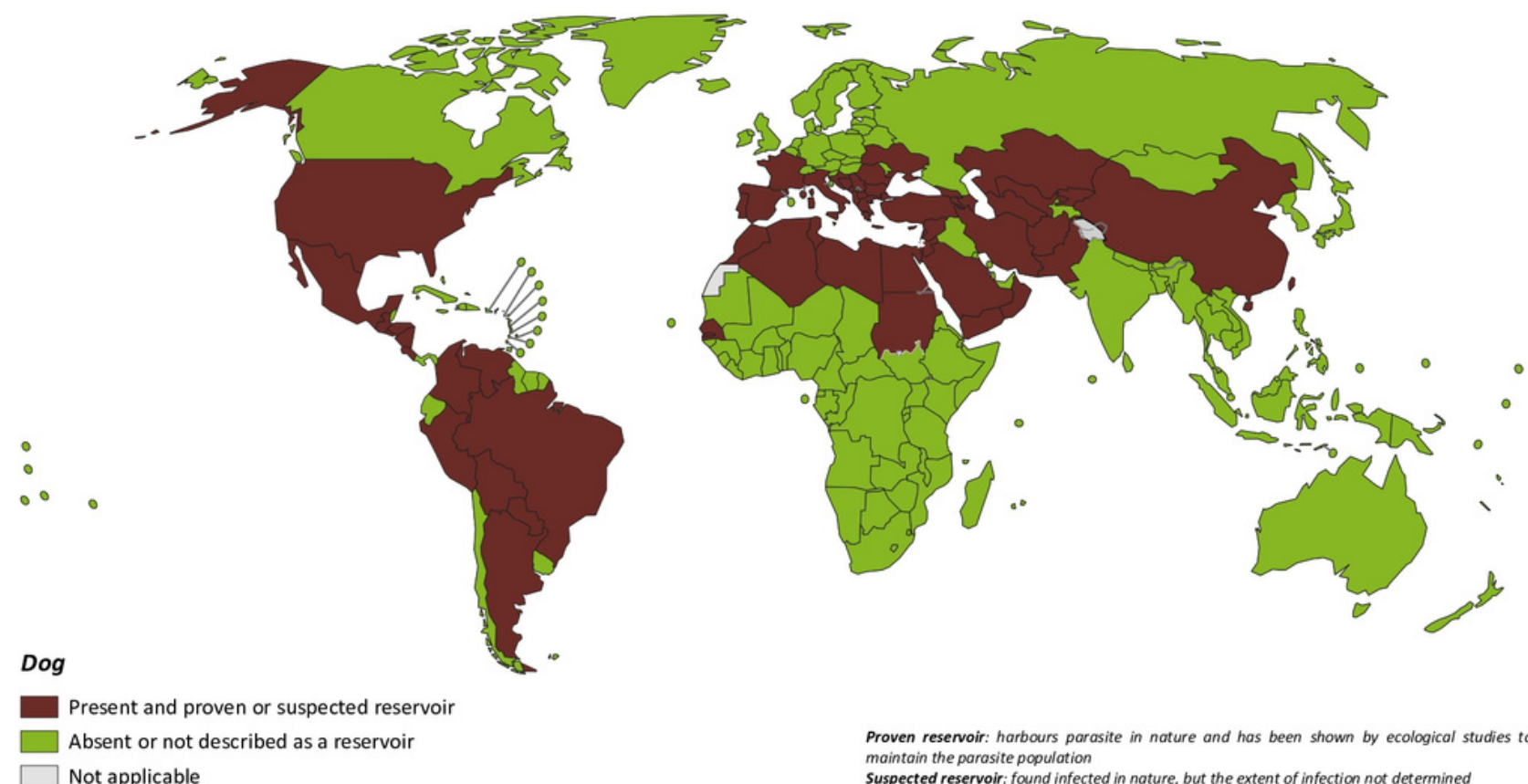


Fig. 1. Distribution of dog as a proven or suspected reservoir of *Leishmania spp.*

OBJECTIVES

Analyze the **prevalence** of canine leishmaniosis in Brazil.

Perform a **bibliographic actualization** about the implication of the **immunologic response** in the development of the canine leishmaniosis.

Compare the **effectiveness** of different **therapies** used against canine Leishmaniosis in Brazil.

MATERIAL & METHODS

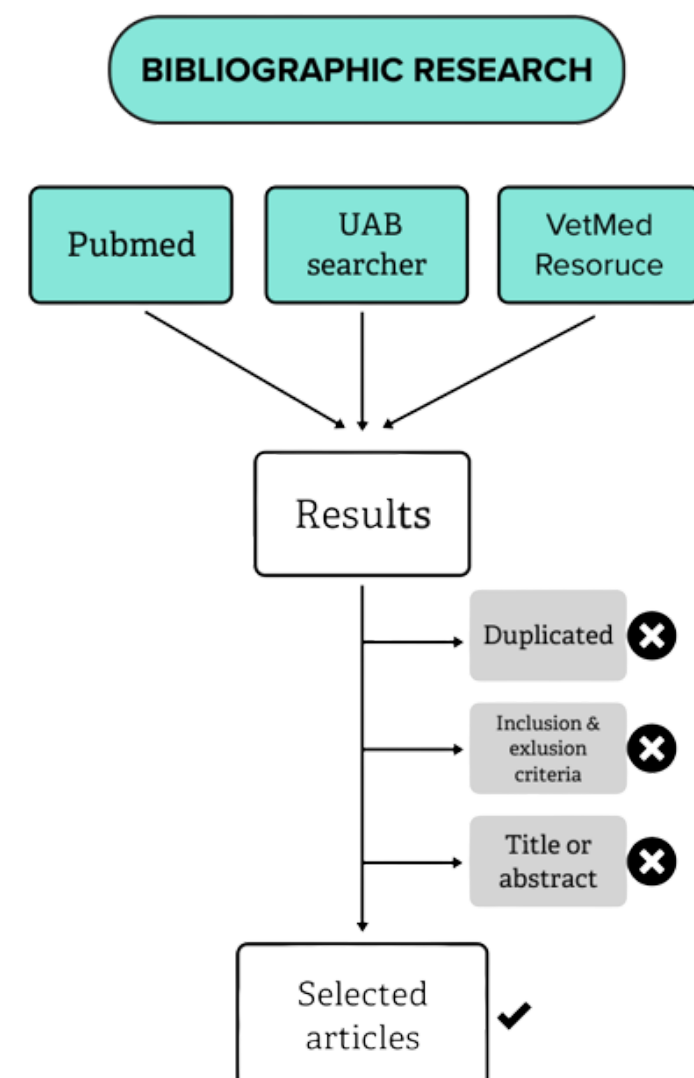


Fig 2. Flowchart of the bibliographic research

RESULTS

Southern area: 9,93% prevalence

North-eastern area: 16% prevalence

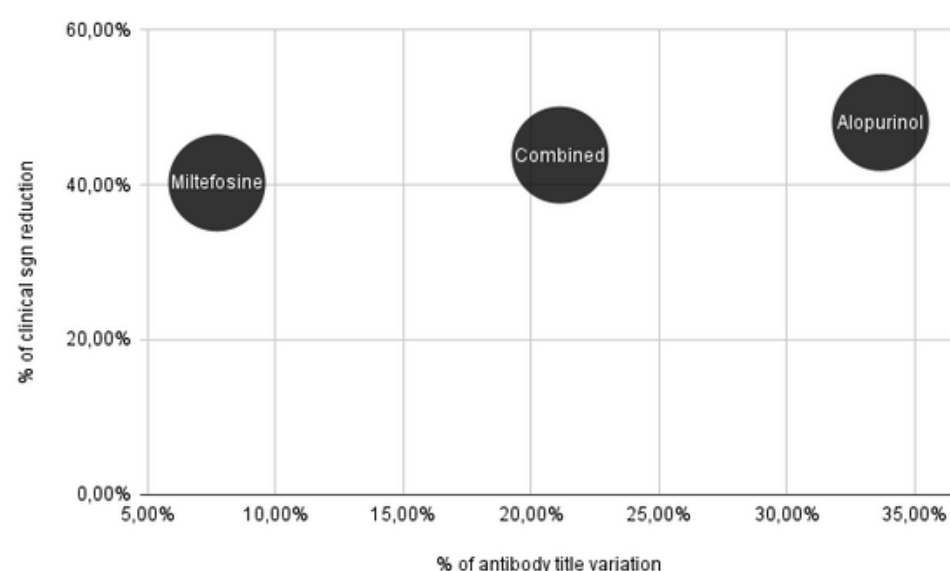


Fig 3. Mean antibody title variation and clinical sign reduction for each therapy analyzed

CONCLUSIONS

Prevalence data varies depending on some factors, such as geographical location or diagnostic test used.

More long term studies are needed to provide a functional alternative to miltefosine in Brazil

Of the databases analyzed, Pubmed is the most representative one on a Leishmaniosis immune response search.

REFERENCES

- World Health Organization (2021). Leishmaniasis. <https://www.who.int/data/gho/data/themes/topics/gho-ntd-leishmaniasis>
- Nascimento, L. F. M., Miranda, D. F. H., Moura, L. D., Pinho, F. A., Werneck, G. L., Khouri, R., Reed, S. G., Duthie, M. S., Barral, A., Barral-Netto, M., & Cruz, M. S. P. (2019). Allopurinol therapy provides long term clinical improvement, but additional immunotherapy is required for sustained parasite clearance, in L. infantum-infected dogs. *Vaccine*, *X*, 4, 100048.
- Dos Santos Nogueira, F., Avino, V. C., Galvis-Ovallos, F., Pereira-Chioccola, V. L., Moreira, M. A. B., Romariz, A. P. P. L., Molla, L. M., & Menz, I. (2019). Use of miltefosine to treat canine visceral leishmaniasis caused by *Leishmania infantum* in Brazil. *Parasites & vectors*, *12*(1), 79.
- Dias, Á. F. L. R., Ayres, E. D. C. B. S., de Oliveira Martins, D. T., Maruyama, F. H., de Oliveira, R. G., de Carvalho, M. R., Almeida, A. D. B. P. F., Teixeira, A. L. S., Mendonça, A. J., & Sousa, V. R. F. (2020). Comparative study of the use of miltefosine, miltefosine plus allopurinol, and allopurinol in dogs with visceral leishmaniasis. *Experimental parasitology*, *217*, 107947.
- Ayres, E. D. C. B. S., Dias, Á. F. L. R., Monteiro, B. R. G., Pazzini, S. S., Barbosa, M. E. C., Silva, E. B. D., Macedo, L. F. D. C., Sousa, V. R. F., Dutra, V., Nakazato, L., & Almeida, A. D. B. P. F. (2022). Clinical and parasitological impact of short-term treatment using miltefosine and allopurinol monotherapy or combination therapy in canine visceral leishmaniasis. *Revista Brasileira de Parasitologia Veterinária = Brazilian Journal of Veterinary Parasitology : Orgao Oficial do Colegio Brasileiro de Parasitologia Veterinaria*, *31*(3), e007222.