



# IV ENEPI

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## INSIGHTS ON SEROPREVALENCE OF LEPTOSPIROSIS IN DOGS AND CATS FROM ANIMAL HOARDERS IN A SEMIARID REGION OF BRAZIL

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**PINHEIRO; Thuane de Sousa <sup>1</sup>, SILVA; Gabriela Medeiros <sup>2</sup>, MONTEIRO; Gabriel Dantas Fernandes <sup>3</sup>, CASTRO; Vanessa <sup>4</sup>, PORTELA; Roseane de Araújo <sup>5</sup>, ALVES; Clebert José <sup>6</sup>, AZEVEDO; Sérgio Santos de <sup>7</sup>, SANTOS; Carolina de Sousa Américo Batista <sup>8</sup>**

### RESUMO

#### **SUB-ÁREA: Estudos epidemiológicos em espécies/tópicos específicos Insights on seroprevalence of leptospirosis in dogs and cats from animal hoarders in a semiarid region of Brazil**

Thuane de Sousa Pinheiro<sup>a</sup>, Gabriela Medeiros Silva<sup>a</sup>, Gabriel Dantas Fernandes Monteiro<sup>a</sup>, Roseane de Araújo Portela<sup>a</sup>, Vanessa Castro<sup>b</sup>, Clebert José Alves<sup>a</sup>, Sérgio Santos de Azevedo<sup>a</sup>, Carolina de Sousa Américo Batista Santos<sup>a</sup> aLaboratório de Doenças Transmissíveis, Centro de Saúde e Tecnologia Rural, Universidade Federal de Campina Grande, Patos-PB. bInstituto Biológico de São Paulo (IB), São Paulo, SP, Brasil. Animal hoarding disorder (HD), especially dogs and cats, is a complex issue that occurs in almost all communities, predisposing to the occurrence of infectious diseases, with zoonotic potential. It is necessary to collect data that contribute to the understanding of leptospirosis within the One Health initiative. Therefore, the aim of this study was to determine the seroprevalence of *Leptospira* sp. in dogs and cats from people with animal HD in a semi-arid region of Northeastern Brazil. After a survey of denouncements of animal hoarders conducted by the sanitary surveillance and information from community agentes, the suspect households were visited. For the characterization of animal HD the history, individual opinion and household situation were evaluated, as well as the addressing of criteria of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). The diagnostic test used was microscopic agglutination (MAT) using a collection of 20 pathogenic antigens and adopting a 1:100 dilution as cutoff point. Thirty-three animal HD households were identified and blood samples (n = 110) were collected from 71 dogs (44 females and 27 males) and 39 from cats (26 females and 13 males). Thirty-eight (34.5%; 95% CI = 25.7 - 43.4%) animals were seroreactive for *Leptospira* sp., being 33 (46.5%) dogs and five (12.8%) cats (P < 0.01). Of the 32 dogs in which it was possible to determine the most likely serogroup 26 (81.3%) were seroreactive for the Icterohaemorrhagiae serogroup, followed by Canicola and Autumnalis (three animals for each serogroup; 9.4%). In cats, the Icterohaemorrhagiae serogroup was the most frequent (four animals; 80%), followed by Pomona in one (20%) animal. The high

<sup>1</sup> Universidade Federal de Campina Grande, Patos-PB, thuanepinheiro@gmail.com

<sup>2</sup> Universidade Federal de Campina Grande, Patos-PB, vet.gabrielam@gmail.com

<sup>3</sup> Universidade Federal de Campina Grande, Patos-PB, gabrielfmonteiro@hotmail.com

<sup>4</sup> Instituto Biológico de São Paulo (IB), São Paulo, SP, Brasil., vanessa.castro@sp.gov.br

<sup>5</sup> Universidade Federal de Campina Grande, Patos-PB, roseanevet@hotmail.com

<sup>6</sup> Universidade Federal de Campina Grande, Patos-PB, clebertja@uol.com.br

<sup>7</sup> Universidade Federal de Campina Grande, Patos-PB, sergio.santos@professor.ufcg.edu.br

<sup>8</sup> Universidade Federal de Campina Grande, Patos-PB, carolamerico@yahoo.com.br

seroprevalence found suggests the need for public policies for this vulnerable population in order to prevent the transmission of zoonoses.

**Keywords:** *Leptospira* sp.; One Health; companion animals; public policies **Agências de Fomento:** Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq.

**PALAVRAS-CHAVE:** *Leptospira* sp, One Health, companion animals, public policies

<sup>1</sup> Universidade Federal de Campina Grande, Patos-PB, thuanepinheiro@gmail.com

<sup>2</sup> Universidade Federal de Campina Grande, Patos-PB, vet.gabrielam@gmail.com

<sup>3</sup> Universidade Federal de Campina Grande, Patos-PB, gabrielmonteiro@hotmail.com

<sup>4</sup> Instituto Biológico de São Paulo (IB), São Paulo, SP, Brasil., vanessa.castro@sp.gov.br

<sup>5</sup> Universidade Federal de Campina Grande, Patos-PB, roseanevet@hotmail.com

<sup>6</sup> Universidade Federal de Campina Grande, Patos-PB, clebertja@uol.com.br

<sup>7</sup> Universidade Federal de Campina Grande, Patos-PB, sergio.santos@professor.ufcg.edu.br

<sup>8</sup> Universidade Federal de Campina Grande, Patos-PB, carolamerico@yahoo.com.br