

TICKS IDENTIFICATION OF A DOMESTIC CAT AND MOLECULAR RESEARCH OF RICKETTSIA SPP. BACTERIA IN THE ARTHROPODS

I Simpósio de Microbiologia de Rondônia: Saúde, Ambiente e Inovação., 1ª edição, de 23/03/2021 a 25/03/2021
ISBN dos Anais: 978-65-86861-91-4

SANTOS; Thays Figueiroa dos¹, **BAUTISTA; José Luis Rodríguez**², **FONSECA; Aivaldo Henrique da**³

RESUMO

Introduction: Ticks are vectors for many pathogens and are involved in the epidemiological chain of several diseases of animals and humans. Although not common, perhaps due to self-grooming habits, domestic cats can be infested by these arthropods. This study aimed to identify the tick species from a domestic cat and to detect the presence of *Rickettsia* spp., etiological agent of spotted fever, in the tick specimens collected.

Methodology: A total of 20 partially fed larvae were manually detached from a mixed breed domestic male cat (*Felis catus*) at a veterinary clinic in the municipality of Nova Iguaçu, State of Rio de Janeiro, Brazil. The most relevant symptoms in the animal were weakness and a high tick infestation burden. The tick genus was identified using a dichotomous key for Brazilian ticks. Tick DNA was extracted by a phenol-chloroform protocol and was used for PCR detection of *Rickettsia* spp. by conducting amplification of the *rickettsial gltA* gene. **Results:** All tick larvae were identified as belonging to *Amblyomma* spp. No detection of *Rickettsia* spp. in the tick DNA samples was observed. Reports about tick infestations in domestic cats in Brazil are scarce. Until now a case of *Amblyomma* spp. ticks infesting a cat in spotted fever-endemic area in the State of São Paulo had been the unique documented report in southeastern Brazil.

Conclusion: Through this research, it was possible to report the occurrence of *Amblyomma* spp. ticks infesting a domestic cat in the State of Rio de Janeiro although any *Rickettsia* spp. was detected.

PALAVRAS-CHAVE: *Amblyomma* spp., *Felis catus*, PCR

¹ Universidade Federal Rural do Rio de Janeiro, thaysfigueiroa@outlook.com.br

² Universidade Federal Rural do Rio de Janeiro, jlrodriguez@yahoo.com

³ Universidade Federal Rural do Rio de Janeiro, aivaldo@ufrj.br