DETECTION AND MOLECULAR CHARACTERIZATION OF *RICKETTSIA* IN TICKS COLLECTED FROM A PUBLIC PARK OF UBERLÂNDIA - MG

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Ticks are considered the main vectors and reservoirs of *Rickettsia*, a bacterium that may cause spotted fever. *Rickettsia* may be transmitted to humans who are in close contact with wild and domestic animals as well as with environment. The present study aimed the molecular detection of bacterial species of *Rickettsia* genus, in ticks from the collection of Universidade Federal de Uberlândia - UFU, collected on capybaras of the Sabiá Park, in Uberlândia city/MG. Eighty four DNA samples were extracted from 143 ticks, individually or in pools, of *Amblyomma sculptum* (n = 58), *Amblyomma dubitatum* (n = 79) and *Amblyomma spp* (n = 6) collected from a total of 22 capybaras. The quality of the DNA samples was evaluated by conventional PCR for amplification of a 16S rRNA gene sequence of ticks. For *Rickettsia spp* DNA detection, PCR was performed for a partial sequence of *gltA* gene that resulted in the amplification in five of the investigated samples. These samples were submitted to a PCR assay with primers that were specific for *gltA* gene sequence of *Rickettsia bellii*, a species with unknown pathogenicity to humans. One of these samples presented amplification and was confirmed subsequently by nucleotide sequencing. The four other samples showed PCR amplification with primers that were specific to *ompA* gene sequence of *Rickettsia* species belonging to the spotted fever group (SFG), which is highly pathogenic to humans and animals. These results still need to be confirmed by nucleotide sequencing and by comparison with different *Rickettsia* sequences deposited at GenBank. These DNA samples were obtained from ticks of *A. dubitatum*, which is usually found infesting capybaras, very frequently associated with presence of *R. bellii* and less commonly related with presence of SFG *Rickettsia*. Due to the large number of people that visit the park every day, there is a need to monitor the infestation of ticks in the park, as well as the presence of *Rickettsia* in these ixodids, especially of those that are potentially pathogenic to humans.

Keywords: *Rickettsia*, ticks, capybara, Brazilian spotted fever

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