FOOD SOURCES AND *Trypanosoma cruzi* INFECTION IN *Panstrongylus megistus*: EVIDENCE OF THE RISK OF DOMICILIARY VECTOR TRANSMISSION

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Chagas disease remains a public health concern in Brazil due to the persistent risk of vector-borne transmission by autochthonous triatomines with a high colonization capacity. *Panstrongylus megistus* is the primary vector in the municipalities covered by the Regional Health Superintendence of Divinópolis, Minas Gerais-Brazil. This study aimed to identify the feeding sources and *Trypanosoma cruzi* infection rate in *P. megistus* specimens collected between 2021 and 2024 in this region.The intestinal contents of 167 *P. megistus* specimens (125–74.8% intradomiciliary; 42–25.1% peridomiciliary) were extracted, and genomic DNA was isolated and amplified for molecular diagnosis of infection (kDNA) and food source identification (12S rRNA locus). Food source identification was performed by comparing the obtained sequences with those deposited in GenBank using BLASTN. Eight vertebrate orders were identified, corresponding to 18 species. In the intradomicile, human blood was detected in 91 (55%) specimens (42 nymphs and 49 adults), of which 20 (22%) were infected with *T. cruzi*. Dog blood was found in 10 adult triatomines, with 3 (30%) being infected. Additionally, infected triatomines feeding on opossums, rodents, chickens, cats, and bats were identified, among others that showed no association with infection. The highest prevalence of human blood was found in the bedroom, with 35 nymphs (58.3%) and 25 adults (41.7%). In the living room, human blood was detected in 19 (95%) adults and 1 (5%) nymph. In the peridomicile, the analysis of 42 insects revealed that most had fed on birds (23–54.8%), followed by rodents (7–16.7%) and dogs (3–7.14%), among other sources. Of the 5 (11.9%) infected specimens, 2 had fed on *Rattus rattus*, and 1 each on *Mus musculus*, *Gallus gallus*, and *Bos taurus*. These results highlight the infection risk to which the population is exposed, especially due to the presence of infected insects in the intradomicile, including nymphs capable of feeding on humans.

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