POTENTIAL VECTORS AND HOSTS OF *RICKETTSIA* SPP: EPIDEMILOGICAL STUDIES IN THE VALE DO PARAÍBA, STATE OF RIO DE JANEIRO/BRAZIL

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Objectives The present work were to analyse *Rickettsia* spp. in host sera and vectors collected in municipalities of the Vale do Paraiba where Brazilian spotted fever (BSF) fatal cases were recently recorded. **Methods** Sera were collected from domestic animals resident in areas of Resende, Barra Mansa, Barra do Piraí and Valença. Ticks and fleas were removed from the hosts, environment and humans. The sera were tested by Indirect Immunofluorescence Assay. After identification, the vectors were pooled according to species, sex, and host performing the vector samples to be processed. Genomic DNA was extracted and polymerase chain reaction was performed to access rickettsial genes *glt*A and *omp*A. The following rate values were determined: Similarity, Dominance, Abundance, Equitability, Parasitic Association, and prevalence. **Results** In total, 109 sera were collected.The sero-positive animals were: dogs 58.70%, equines 44.12%, bovines 15.38% and cat 100. By PCR, dogs 13.11% and equines 8.82% amplified rickettsial gene fragments. These PCR-positive animals were from Barra do Piraí dogs and equines and Valença dog. We analyzed the DNA extracted from 218 vector pools n=321, and 14.22% of them yielded rickettsial gene fragments by PCR. The prevalence of PCR reactive pools was: *Rhipicephalus sanguineus* 30%, *Amblyomma cajennense* 5.26%, *A. aureolatum* 33.33%, and *Ctenocephalides felis* 16.36%. PCR technique showed infected vectors in Barra Mansa *C*. *felis*, *R*. *sanguineus*, *A*. *cajennense*, Barra do Piraí *C*. *felis* and Resende *C*. *felis*,*R*. *sanguineus*,*A*. *cajennense, A. aureolatum*. The SR values among the vector's fauna of the studied municipalities ranged from 0.6 to 0.8. Taking in account only *A. cajennense*, *R. sanguineus* and *C. felis* species, the most frequent and PCR-reactive species, the SR values ranged from 0.8 to 1. **Conclusion** Our results are indicating the participation of dogs, equines, *R. sanguineus, A. cajennese*, and *C. felis* in the maintenance of peridomiciliary enzootic cycle of *Rickettsia* spp, and that, potentially, are responsible for the human epizootic events in the studied municipalities.