

42 dogs (32.1%) presented seroreactivity (titres ≥ 100) to at least one serovar. Serogroup Icterohaemorrhagiae was the most frequent, 92.7% of the seropositive samples. Leptospiral DNA was detected by PCR on 26 urine samples (19.8%). PCR results, which indicate the carrier status, were not associated to the serology ($p = 0.10$). From the 26 PCRpos samples, 12 (46%) were also seropositive, while among the 105 PCRneg, 75 (71%) were seronegative. Age was not associated to seropositivity ($p > 0.05$), but dogs older than five years of age presented 4.07 more chances (odds ratio) to be leptospiral carriers (PCR positive) than the younger ones. **Conclusion:** Serology is not a good method to identify asymptomatic leptospiral kidney-carriers because of the low positive predictive value of the serological test. It was demonstrated that urinary PCR is a strong tool recommended for the detection of leptospiral carriers among asymptomatic dogs. Despite the limitations of urinary research of leptospires, which is influenced by the intermittent urinary elimination, 20% of the dogs examined were eliminating leptospires at the time of sampling. The obtained results demonstrated the occurrence of a serious public health problem. **Ethics committee approval number:** uff, number 709. **Funding:** This study was supported by the Fundação de Amparo à Pesquisa do Estado do Rio de Janeiro (Faperj).

22. HIGH PROPORTION OF CATTLE AND SHEEP SEROPOSITIVE AND RENAL CARRIERS OF LEPTOSPIRA SP. UNDER SEMIARID CONDITIONS

Alta proporção de bovinos e ovinos soropositivos e portadores renais de *Leptospira* sp. sob condições semiáridas

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Introduction: The development of cattle and sheep farming is of paramount importance for Brazilian agriculture. Leptospirosis is caused by bacteria of the genus *Leptospira* sp. and stands out as causing serious reproductive problems in ruminants. **Objective:** Serological and molecular characterizations of *Leptospira*

sp. infection in cattle and sheep under semiarid conditions.

Methods: Blood and urine samples were collected from 99 females of reproductive age (51 cattle and 48 sheep) for serological diagnosis (MAT; cut-off = 100), molecular detection and *Leptospira* sp. culturing. **Results:** Of the 99 examined animals, 38.4% (38/99) were reactive at the serological tests. Of them, 49% (25/51) were cattle and 27.1% (13/48) sheep. The serogroups detected in cattle were Sejroe (36.8%), Hebdomadis (26.3%), Australis (10.5%), Djasiman (10.5%), Balum (5.3%), Pomona (5.3%), and Cynopteri (5.3%) with titers of 100-800. In sheep, the reactive serogroups were Australis (27.3%), Balum (27.3%), Djasiman (18.1%), Tarassovi (9.1%), Icterohaemorrhagiae (9.1%), and Cynopteri (9.1%) with titers of 100-400. Leptospiral DNA was detected in nine urine samples, five cattle and four sheep. Farm 1 showed the highest serological positivity frequencies for both cattle (70.6%) and sheep (70.6%). Similarly, Farm 1 presented highest frequency of DNA detection (eight samples, 89%). In this property, it was observed the existence of consorted rearing of cattle and sheep with close coexistence between these species.

Conclusion: In semiarid conditions, transmission among animals of the same species seems to be the main form of *Leptospira* dissemination in cattle and sheep herds. However, the contribution of other domestic and wild animals cannot be discarded. The practice of consorted rearing of cattle and sheep and their close coexistence may facilitate the spread of the pathogen in rural properties.

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23. HISTOPATHOLOGICAL EVALUATION OF TISSUES FROM HAMSTERS (*MESOCRICETUS AURATUS*) EXPERIMENTALLY INFECTED WITH STRAINS OF LEPTOSPIRA SPP. FROM DIFFERENT SEROGROUPS

Avaliação histopatológica de tecidos de hamsters (*Mesocricetus auratus*) experimentalmente infectados com estirpes de *Leptospira* spp. de sorogrupos diferentes

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Introduction: Leptospirosis is an infectious disease determined by the different serogroups of *Leptospira*