

to *Leptospira interrogans*. Anti-*Leptospira* antibodies were detected in 11 (19,3%) of the tested animals. **Conclusion:** The results reinforce the importance of the genital tract as an extra-renal site of colonization, suggesting the possibility of venereal transmission in sheep. **CEUA:** 58/2012. **Funding:** CNPq, Capes.

20. HIGH FREQUENCY OF SEROREACTIVITY AGAINST SEROGROUP TARASSOVI IN THE TRIÂNGULO MINEIRO REGION, MINAS GERAIS STATE, BRAZIL

Alta frequência de sororreatividade contra o sorogruppo Tarassovi na região do Triângulo Mineiro, estado de Minas Gerais, Brasil

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Introduction: Leptospirosis is an important zoonosis that affects wild and domestic animals, mainly cattle. The serogroup Sejroe is the most frequent in cattle and is associated with reproductive alterations, causing economic losses to milk and meat production. However, the occurrence of serogroup Tarassovi reactivity in cattle is not enough investigated. Until now reactivity to this serovar was mainly found in wild and domesticated swine. Thus, due to the possibility of close contact between cattle and wild animal species, serological investigations must be performed to clarify this assumption. **Objective:** To evaluate the frequency of seroreactivity in cattle against serogroup Tarassovi in the Triângulo Mineiro region of Minas Gerais State, Brazil. **Methods:** A total of 398 samples of bovine blood serum was evaluated by Microscopic Soarogglutination (MAT) technique using the screening (t_{1:100} dilution) and titration (titres of 200 to 3,200) procedures against the serogroups Australis, Autumnalis, Batavie, Canicola, Ballum, Icterohaemorrhagiae, Cynopteri, Djasiman, Sejroe, Grippotyphosa, Hebdomadis, Javanica, Panama, Pomona, Shermani e Tarassovi. **Results:** Forty eight percent of evaluated samples 191/398 (48.0%) were seroreactive to serogroup Tarassovi, and 116/398 (29.1%) of these animals presented titres between 200 and 3,200.

But, serogroup Sejroe remained as the most frequent (78.1% – 311/398). These results could be crossed reactions between Sejroe and Tarassovi serogroups, that could be clarified by the comparison of the titers presented by both serovars. **Conclusion:** Serological reactions against Sejroe and Tarassovi serogroup were present in cattle herds of the Triângulo Mineiro region, state of Minas Gerais, Brazil, of leptospirosis in animal species. **CEUA:** 018/16. **Funding:** Fundação de Amparo à Pesquisa de Minas Gerias (Fapemig).

21. HIGH NUMBER OF LEPTOSPIRAL CARRIERS AMONG ASYMPTOMATIC DOGS IN THE MUNICIPALITY OF SÃO GONÇALO, METROPOLITAN REGION OF RIO DE JANEIRO, BRAZIL

Alto número de portadores leptospirais entre cães assintomáticos no município de São Gonçalo, região metropolitana do Rio de Janeiro, Brasil

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Introduction: The dog's role as leptospire carriers has been increasingly studied, because there is strong evidence that asymptomatic dogs can be chronic carriers and can act as a source of infection for human beings, causing a public health problem. **Objective:** To evaluate the role of asymptomatic dogs as *Leptospira* carriers in an endemic area of Brazil. **Methods:** It was studied 131 male dogs without apparent symptoms of leptospirosis or any other infectious diseases. The selected group was composed only with male dogs, because of the practicability for the catheter urine collection. The animals were carefully selected after clinical care at SOS Focinhos Veterinary Hospital, located in the municipality of São Gonçalo, metropolitan region of Rio de Janeiro, Brazil. The dogs had not been vaccinated against leptospirosis in the last 12 months. Blood and urine collected from them were submitted to the following tests a) serum, ALT (alanine aminotransferase), urea, creatinina and a CBC (complete blood count) and MAT with a panel including eight serovars representing seven serogroups; b) urine polymerase chain reactions (PCR). **Results:** A total of

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*