

SUB-ÁREA: Leptospirose em animais de Produção e equinos

Prevalence of anti-*Leptospira* spp. antibodies among donkeys in the semi-arid northeastern region of Brazil

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The genus *Leptospira* causes leptospirosis, a widespread zoonotic disease that leads to significant financial losses in herds around the world. Many animal species are susceptible to *Leptospira* spp. infection, including donkeys, as has been found in studies that identified infection by serovars Icterohaemorrhagiae, Ballum, Pomona, Hardjo, and Canicola. Differences between serovars play an important role in the severity of the disease, which often follows a subclinical course, enabling a variety of animals to act as reservoirs, especially in endemic areas. Free-roaming donkeys are a common sight in northeastern Brazil, most of them are homeless, living in the streets and scrounging for food in trash cans. This may increase their chance of coming in contact with the urine of rodents, which are reservoirs of leptospires. Investigations of infectious agents in donkeys are scanty. We aimed to determine the anti-*Leptospira* spp. serovars that predominate in donkeys raised in the semi-arid region of northeastern Brazil. We determined the prevalence of anti-*Leptospira* spp. antibodies in sera from 145 free-roaming donkeys in the Brazilian semi-arid region by the microscopic agglutination test (MAT), using 24 strains of *Leptospira* spp. We detected 34 of 145 (23%) positive animals, with titers of 100–3,200, including serovars Kennewicki, Bratislava, Pyrogenes, Tarassovi, Canicola, Guaricura, Icterohaemorrhagiae, Grippotyphosa, and Copenhageni. Serovars Kennewicki and Bratislava were detected most frequently and at the highest antibody titers. The detection of considerable prevalence of antibodies against serovars Kennewicki and Bratislava indicates that donkeys herds are being exposed to the agent by contact with swine, animals wild, in addition to rodents, reservoirs of these serovars. The extensive rearing system prevalent in the studied herd, without adopting appropriate sanitary measures, favors the occurrence of the infection.

**Key words:** donkeys; equids; leptospirosis; serology, diseases infection.