



Rabies in domestic and wild animals in Maranhão (Brazil), a retrospective analysis of the foci

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INTRODUCTION

Human rabies is a progressive and fatal encephalitis, which has been prevented in domestic animals in Brazil with vaccinations. The State of Maranhão has an area of 331,983 km², with rabies occurring frequently, with 6,776,699 inhabitants living there. Domestic herds, which include: 9,428,128 cattle, 97,157 buffaloes, 257,423 horses, 984,666 pigs, 358,464 goats and 319,158 sheep are possible sources of food for the main spreader of the disease (*Desmodus rotundus*), however, there is no population monitoring of wild animals. **Objective:** Considering the importance of rabies, the present study aimed to highlight the epidemiological profile of occurrences and detections in animals and humans in Maranhão.

METHODS

A retrospective analysis was carried out on the focus of scientific articles published between 1996 and 2021 in electronic databases: Scientific Electronic Library Online (SciELO), Google Scholar, Virtual Health Library (VHL) and U.S. National Library of Medicine (PubMed). The descriptors used in the research were "Rabies in herbivore in Maranhão", "Rabies in humans in Maranhão", "Raiva em herbívoros no Maranhão" and "Raiva em humanos no Maranhão"

RESULTS

The research located records of 453 outbreaks of animal rabies, on average 18 cases per year. There were 419 cases in cattle (92.49%), 11 cases in horses (2.43%), 7 in sheep (1.55%), 7 in vampire bats (1.55%), 3 in goats (0.66%), 4 in foxes (0.88%), 1 in non-hematophagous bats (0.22%) and 1 case in pigs (0.22%). The most frequent clinical signs in animals were: anorexia, isolation from the herd, sialorrhoea, mydriasis, head tilted to the side, opisthotonus, motor incoordination, and paralysis of the pelvic limbs. The presence of *Desmodus rotundus* increased the probability of rabies occurring 1.517 times. Vaccination coverage in herbivores in the state corresponded to 10.20% of herbivore herds. This helps to explain the absence of the disease in much of the state, especially in regions with a higher concentration of cattle. The disease occurred in areas with less vaccination. The Brazil presented 188 human cases from 2000 to 2017, of which 55 occurred in Maranhão (30.0%). The most frequent form of transmission was bites (81.9%), of which 46.6% were by dogs and 45.9% by bats.

CONCLUSION

Cases of rabies in animals in the state are endemic, dogs and bats were the biggest aggressors in humans, and bats are important in rural areas in domestic production animals.

References
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