

Simultaneous parasitism by two ixodid (*Amblyomma aureolatum* and *Rhipicephalus sanguineus*) and one argasid (*Ornithodoros brasiliensis*) tick in a dog

J. Reck; G. M. Klafke, J. R. Martins

Instituto de Pesquisas Veterinárias Desidério Finamor (IPVDF), FEPAGRO, Eldorado do Sul, RS, Brazil.

Domestic animals could be parasitized by several tick species. Commonly, tick fauna depend on region studied and host specie and age. Cases of multiparasitism by ticks are common, especially on wild or rural environments. However, some associations were uncommon or never reported, particularly those between argasidae and ixodidae ticks in dogs. Here, we report a case of multiparasitism by three tick species (two ixodid and one argasid) in a dog. This case was registered during a survey to investigate tick fauna in farms from Southern Brazilian. Ticks were collected during a visit in a ranch in the municipality of Jaquirana, RS, in which all domestic animals (bovines, horses, dogs, cats and chickens) were inspected for ticks. Two adult females of *Amblyomma aureolatum*, one adult female and one adult male of *Rhipicephalus sanguineus* and one adult female of *Ornithodoros brasiliensis* were collected from a 2-year-old mixed breed male dog. The *A. aureolatum* ticks were at the left ear; the female of *R. sanguineus* was at the withers and male was over its body; and *O. brasiliensis* was at the groin region. *A. aureolatum* adults are usually found on dogs from rural areas, while *R. sanguineus* is a cosmopolitan tick, commonly found on urban dogs. The argasidae *O. brasiliensis* has no host specificity at any life stage, and its distribution is restricted to Southern Brazilian highlands. According dog's owner, this animal was used to hunt and to guard domiciles. The owner also reported that the dog had been in four different places/cities in a three week interval before the tick collection: the visited ranch (a rural environment), a lumberman's camp (a subtropical forest), and two urban houses (at the suburbs and downtown). Probably, this kind of movement between different ecosystems is responsible for this unusual finding of multiparasitism, registered for the first time in the literature. Also, this finding draws attention to neglected issues in acarology: risk of some tick species spreading in non-endemic regions and the putative sharing of tick-borne pathogens between different tick species.

Key-words: multiparasitism, host, argasidae, ixodidae

Financial support: IPVDF