

TITLE: A SURVEY OF BORNAVIRUS, CIRCOVIRUS AND POLIOMAVÍRUS IN PSITTACINES FROM ILLEGAL TRADE

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ABSTRACT: Brazil has an important biodiversity, the second biggest number of bird species in the world, being, for that reason, constant target of illegal wildlife trade. The wildlife trafficking routes are often unknown and may go through other countries and different states, facilitating the spread of infectious agents, further aggravating the problem of the Brazilian fauna. The literature on viruses in psittacines in Brazil is very scarce, so studies are needed to identify the presence of viral agents, epidemiology and the impact of the country. In this study, fecal samples from 53 parrots were tested. All birds presented at least one clinical sign compatible with one or more viruses, such as apathy, anorexia, sudden death, feathers alteration, neurological signs and / or gastrointestinal signs. All samples were tested using PCR or RT-PCR, for the three viral agents: circovirus (Beak and Feather Disease Virus), polyomavirus and bornavirus (Proventricular Dilatation Disease), regardless of the presented clinical signs. We found positives 22 birds, 4 with concomitant infection with more than one virus, in a total of 26 positive samples. From these samples, 17 from *Amazona aestiva* were positive for bornavirus (3 with concomitant circovirus infection), 4 samples for circovirus (3 presented concomitant infection to bornavirus) and 1 for polyomavirus. From *Amazona amazonica*, 1 sample was positive for bornavirus and 2 samples from *Ara ararauna* were positive for circovirus, 1 presented concomitant with polyomavirus. Although we used birds with clinical signs consistent with the aforementioned diseases, they were mostly non-specific clinical signs, thus, the number of positive birds found was alarming. It's possibility that the birds have become infected after coming in captivity, however, one cannot rule out the hypothesis that the virus could be spread in the wild. Other studies are needed to prove this theory. It's also necessary to reinforce the legislation on the detection of pathogens in order to protect the Brazilian fauna.

KEY WORDS: Virus, Bird, Parrot, Wildlife, illegal trade