DETECTION OF *Cryptosporidium* spp. INFECTIONS IN PUPPIES BY MOLECULAR METHODS

DETECÇÃO DE INFECÇÕES POR Cryptosporidium spp. EM FILHOTES CANINOS POR MÉTODOS MOLECULARES

M. F .C. PANEGOSSI[1*], A. E. G. WATANABE[1], S. V. INÁCIO[3], L. S. NETO[4], M.V. MEIRELES[5] and K. D. S. BRESCIANI[6]

The protozoan *Cryptosporidium* spp. is considered an important pathogen in terms of public health (CIELOSZYK et al., 2012), and is mainly associated with low socioeconomic status and poor sanitation conditions (ASSIS et al., 2013). Dogs eliminate fecal oocysts, with or without diarrhea, and are considered as potential sources of human infection (WANG et al., 2012), although this has not been confirmed experimentally (BOWMAN & LUCIO-FORSTER, 2010; UEHLINGER et al., 2013). This study aims at detecting infection by *Cryptosporidium* spp. in fecal samples from puppies by nested-polymerase chain reaction (Nested-PCR). The samples, previously identified and frozen, were intended for molecular investigation. DNA extraction was performed using the QIAamp DNA Stool kit (Qiagen) and the nested-PCR technique was used for the amplification of gene fragments of the 18S subunit of ribosomal RNA. A total of 200 dogs were examined, 100 males and 100 females, 111 of defined breed and 89 mongrel (non-defined breed, NDB). Of these, 81, 43, 48 and 28 puppies were up to two, two to three, three to six and six to twelve months old respectively. Regarding their origin, the animals were from the municipalities of Araçatuba and Votuporanga, SP, and 126 were household pets; 11 were kept in zoonosis centers; 50 were from Pet Shops; 12 from a breeding farm and one (0.5%) stray pet that had been adopted. The sample prevalence of *Cryptosporidium* sp. in dog feces was 1% (2/200). Of the two female mongrel animals, aged 60-90 days, one was a pet and the other was rescued from a zoonosis center. Although the occurrence was low, infection by *Cryptosporidium* spp. was detected in two puppies using molecular techniques.

[1]Graduanda do 4° ano do Curso de Medicina Veterinária - Campus Araçatuba, Faculdade de Medicina Veterinária (FMVA), UNESP – Araçatuba.
[3] Doutoranda do Programa de Pós-Graduação em Ciência Animal, Faculdade de Medicina Veterinári. UNESP. Araçatuba, SP.
[4] Doutorando do Programa de pós-graduação em Medicina Veterinária. Faculdade de Ciências Agrárias e Veterinárias. UNESP. Jaboticabal, SP
[5] Médico Veterinário, Professor Adjunto do Departamento de Clínica, Cirurgia e Reprodução, Faculdade de Medicina Veterinária – UNESP, Araçatuba – SP, Brasil.
[6]Médica Veterinária, Professora Adjunto, Departamento de Apoio, Produção e Saúde Animal (DAPSA) da Faculdade Medicina Veterinária (FMVA), UNESP - Araçatuba-SP.
*Email : marielepanegossi@gmail.com