

04-3: Prevalence of Cryptosporidia in Dogs and cats from selected kernels and veterinary clinics in Nairobi, Kenya

Akale, J. E¹; Maina, C.W¹; Nduhiu G¹; Mainga¹; Macharia, J. K¹ Marimba, K A and Kang'ethe E.K¹

Department of Public Health, Pharmacology and Toxicology, University of Nairobi, P.O. Box 29053 -
00625 Nairobi

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Abstract

Cryptosporidia is protozoan zoonotic parasite that belongs to the genera Ampicomplexa and infects many of the domestic animals. *Cryptosporidia parvum* is the most known of the species which has the cow as the reservoir host and infects human amongst others. *Cryptosporidia canis* and *felis* infect dogs and cats respectively and have been shown to infect humans. A cross sectional study involving 372 and 16 fecal samples from dogs and cats respectively were sampled between 2010 and 2011 in Nairobi from sick dogs presenting at various veterinary clinics and healthy dogs from selected kernels around Nairobi and Thika. The samples were stained using modified Ziehl Nelsen staining technique (MZN) and the positive samples subjected to immunofluorescent assay (IFA). In 2010 sampling 2.7 % (5/184) were positive on MZN and of the positive only one sample was positive on IFA (0.5%; 1/184). There was a significant difference ($p=0.01$) between the kernels/ clinics and no significant difference in the infection rates between the sex and the age of the dogs. In 2011, the prevalence in dogs was 9.3% (17/183) and 11.8 % (2/17) in cats using MZN. On IFA, the prevalence was 1.6% (3/200). There was a significant difference in the infection rates between the kernels/clinics ($P= 0.01$) and between the ages ($P= 0.002$) but there was no significant difference in the infection rates between the kernel/clinics ($P = 4.1$) and between the sexes ($P=0.06$). Since *Cryptosporidia canis* and *felis* have been shown to be zoonotic in immunocompromised individuals, there is need to monitor the infection rates in these companion animals as they could be a source of human infection.

