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Short communication

Intestinal parasites in various animals at a zoo in Malaysia

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Abstract

A survey was undertaken to investigate the prevalence of intestinal parasites from different groups of mammals housed in a zoological garden in Malaysia. A total of 197 faecal samples were collected randomly from various primates (99), hoofed mammals (70) and feline (28). It was discovered that 89.3% of feline, 54.5% of primates and 45.7% of hoofed mammals were infected with intestinal parasites. Intestinal parasites found in primates were *Balantidium coli* (19.2%), *Cryptosporidium* spp. (14.1%), hookworm (10.1%), *Trichuris* spp. (5.1%), *Ascaris* (4.0%) and *Blastocystis* spp. (2.0%). For hoofed mammals, hookworm had the highest prevalence (34.3%) followed by *Trichuris* spp. and *Cryptosporidium* spp. (5.7%). Meanwhile, for feline, *Toxocara cati* was the most prevalent (64.3%), followed by *Cryptosporidium* spp. (14.3%), *Spirometra* spp. (7.1%), and hookworm (3.6%). Animals that were infected were all asymptomatic with low parasite load. Routine monitoring of the presence of parasites in animals kept in the zoo is imperative in assisting zoo management in the formulation and implementation of preventive and control measures against the spread of infectious parasitic diseases among animals within the zoo or to humans.

Keywords: Intestinal parasites; Zoo animals; Malaysia

1. Introduction

In nature, wild animals live on large areas and have consequently a low genetic resistance against parasitic infections because of low exposure. When herds of these wild animals are kept in captivity in zoological gardens, the problem of parasitic infections can aggravate and pose a serious threat to endangered species, occasionally causing sudden and unexpected local declines in abundance (Muoria et al., 2005). Knowledge of their diseases needs to be gained, especially when bred for re-introduction in the wild. Unfortunately, there have been few detailed and comprehensive studies on the prevalence of the intestinal parasites in animals housed in zoological garden.

Occurrence of parasites in animals housed in zoological gardens might vary according to the type of husbandry practices, disease prophylaxis and treatment administered. Intensive husbandry of animals produces conditions which facilitates the spread of parasites. The frequent use of antihelmintics often cause resistant strains to evolve. Moreover, the nutritional status of captive animals can also enhance or diminish their resistance to disease (Geraghty et al., 1982).

Therefore, this present study attempts to determine the occurrence and intensity of parasites in wild animals in captivity particularly the feline, hoofed mammals and primates. The finding of this study is essential for the development of a better understanding of the gastro-intestinal parasite fauna of these animals and for the

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