HAEMOPROTOZOAN INFECTION IN STRAY DOGS AT NAGPUR

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ABSTRACT

A study on prevalence of haemoprotozoan infection in stray dogs, belonging to local breed was conducted at Nagpur during September 2008 to November 2008. A total of 150 dogs were examined, of which 22 (12.6 %) dogs harbored haemoprotozoan infection. The prevalence of infection of Babesiosis 12 (8 %), Ehrlichiosis 9 (6 %), and Haemobartonella 1 (0.6 %) was noted. The overall prevalence observed during the study was 12.6%.

KEY WORDS : Haemoprotozoan, Babesiosis, Ehrlichiosis, Haemobartonella

INTRODUCTION

Pet care management, their breeding and related clinical problems are of great importance in Indian civics. Epizootics like canine disease lead to heavy mortality in dogs but diseases which cause moderate mortality, however adversely affect the health of dogs thereby lead to loss in their working abilities. Thus owner suffers losses unknowingly. (Dharaskar , 2002).

Among parasitic diseases, the haemoprotozoan infection in dogs has occupied a significant place in protozoan parasites. This infection is essentially vector born in nature, clinically causing fever, anorexia, emaciation, anemia, listlessness etc. in dogs. (Bhaskara Rao et al.,1986)

The distribution of haemoprotozoans along with their host is largely governed by the climatic conditions which vary according to latitude, longitude, altitude and seasons of the year, thereby reflecting the availability of vectors which are prime factor in transferring the infection from one dog to another and thus spreading the disease among healthy animals.

The work on prevalence of haemoprotozoan infections in stray dogs is lacking in Nagpur. It was therefore decided to study the prevalence of haemoprotozoan infection in stray dogs in Nagpur city.

MATERIALS AND METHODS

The prevalence study of haemoprotozoan infection in stray dogs of local breed was conducted in Nagpur during the period from September 2008 to November 2008. A total of 150 blood smears of stray dogs were collected from S.P.C.A. (Society for Prevention of Cruelty on Animals), shelter house for dogs and , Gittikhadan area of Nagpur. At the time of blood smear collection, the various clinical signs were observed which included fever (102-106^{o}F), anemia, mucoid ocular discharge, pale, congested mucous membrane, haemoglobinurea, jaundice, depression, nervous symptoms, enlarged lymph node, spleenomegaly, hepatomegaly, skin abnormalities, petecheal harmorrhages and tick infestation if any etc.

Thin blood smears from clinically suspected dogs were prepared by collecting a drop of blood from marginal vein of ear of dogs on clean, grease free glass slides. The blood smears were brought to the laboratory and stained immediately by Leishman's method, as described by Adam et al. (1971). The stained smears were examined under oil immersion for the presence of blood protozoa (Soulsby, 1982)

RESULTS AND DISCUSSION

Out of the 150 blood smears examined 22 were found positive for haemoprotozoan infection. The variability of infection of haemoprotozoan revealed *Babesia sp.* 12 (8 %), *Ehrlichia sp.* 9 (6 %), and *Haemobartonella sp.*1 (0.6 %). The findings are in accordance with Juyal et al. (1994) who reported 8.89% *Babesia sp.*, 0.35% *Ehrlichia canis* in Punjab. The present study shows the intensity of Babesiosis was more followed by Ehrlichiosis and Haemobartonellosis. The intensity of Ehrlichiosis was much higher than observed by author whereas Harikrishnan et al. (2001) reported higher incidence of Ehrlichiosis during summer in Madrs city. During the study, clinically suspected dogs were observed specifically for skin lesions, mostly the petechial haemorrhages were observed on skin of face, flank region and on skin of right thorasic region. In one case hemorrhages were confined to skin of lower part of legs and dog was found in recumbent position. On examination, blood smears of these dogs were found severely positive for Babesia organisms. The environmental factors prevailing at different geographical locations being variable can be responsible for occurrence of infection. Among pet animals, dog is a familiar companion of human beings due to its well known qualities like, faithfulness, selflessness and usefulness in security services, the great attention towards its health is important.

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