PREVALENCE OF CANINE DIROFILARIASIS IN AND AROUND BHUBANESWAR, ODISHA

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The available literature on the prevalence of dirofilariasis with respect to breed, age and sex is quite meager in India. Dirofilariasis popularly known as 'Heartworm Disease' is a common and important disease affecting dogs, cats, foxes and wolves in tropics, sub-tropics and temperate regions of the world. *Dirofilaria immitis* is the causal agent of heartworm disease in dogs and cats (Genchi et al., 2001). There is apparent increasing prevalence of heartworm disease in canines in India. The aim of the present study was to assess the prevalence of dirofilariasis with respect to breed, age, sex in and around Bhubaneswar, Odisha.

MATERIALS AND METHODS

The study was conducted on screening of 1119 dogs for dirofilariasis presented to teaching veterinary clinical complex, OUAT, Bhubaneswar and Animal Birth control programme (ABC), veterinary polyclinic, Bhubaneswar Municipality Corporation during the period April 2010 to August 2011. Canine dirofilariasis was diagnosed by wet smear examination and modified Knott's method (Mc Call *et al*., 2004). Prevalence of dirofilariasis in various age groups, breeds and sex of the dogs was recorded. Six numbers of highly positive cases died during the study period. Adult dirofilarial worms were being recovered from the heart and lungs during post mortem examinations.

RESULTS AND DISCUSSION

Overall prevalence of this disease was found to be around 15.19%; 10.92 % (51/469) pets and 19.47 % (127/652) stray dogs were found to be positive for dirofilariasis. Su, (1999) reported about increasing incidences in stray dogs. The increasing incidence in stray dogs in relation to pet dogs may be due to their high exposure to mosquitoes and lack of proper medical attention. Results of breed susceptibility of dirofilariasis revealed highest incidence in Labrador (38%) followed by German shepherd (GSD) (18%), mixed breed (12%) and Spitz (10%) among pet dogs. Pug breed comprised two percent while Pomerian, Alsatian and Daschund had incidences 4% of each. About 8% of Doberman breed suffered from dirofilariasis 64.7 % male and 27.45 % female pets and 13.58 % male and 61-41 % female stray dogs were positive for Dirofilariasis Donato Traversa *et al.* (2010) reported that male and large sized dogs resulted more likely to be infected by *Dirofilaria spp*. possibly due to the fact that animals living outdoor and of large size are more exposed to mosquito bites. Ching-cheng wu and Ping-Chin Fan (2003) also reported higher incidence of Dirofilariasis in large sized dogs. Both in pet and stray dogs the prime age of susceptibility in our study is 3 to 9 years. At the age below 3 years the susceptibility remains same both in pet and stray dogs at 14% each. From 3 to 6 years of age, 19 (38%) pets and 32 (64%) stray were affected suggesting a higher susceptibility of stray over pet dogs. On the other hand, in animals within 6 to 9 years, the number of affected pet dog remained same (19,38%) whereas the stray dogs sharply reduced to 11 (22%). Yildirim *et al*. (2007) reported highest incidence of disease between higher age groups i.e 7-10 years of age. Mortality rate in pet animal was found to be approxiamately 12%. The mortality rate in stray animals could not be studied as the animals taken during the study period belonging to Animal Birth Control (ABC) programme released free after 4-5 days of their sterilization programme.

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