

DOGS AS A POSSIBLE ANIMAL RESERVOIR FOR LEISHMANIASIS IN DICKWELLA, SRI LANKA.

Charani A Abayaweera¹, Yamuna Siriwardana¹, T J Abeywardana¹, R M U K Rathnayaka², H G C Nuwan Kumarasinghe³, Nadira D Karunaweera¹

¹Department of Parasitology, Faculty of Medicine, University of Colombo.

²Regional Epidemiology Unit, DPDHS Office, Matara.

³Veterinary Office, Dickwella, Matara.

Introduction:

Leishmaniasis is now recognized as an endemic disease in Sri Lanka. Infection caused by *Leishmania* spp. is known to affect both humans and animals, including domestic dogs. Detection of an animal reservoir is important to understand transmission dynamics and to formulate control strategies. By testing for antibody response; past infections and asymptomatic disease can be detected. rK39 is a *L.donovani* specific antigen to which the visceralizing infection can exert a serological response.

Objectives:

To calculate the sero-prevalence of *L.donovani* positive dogs in the selected study area.

Design, setting and methods:

The area selected for this study was the Nilwella GN division of Dickwella MOH area, as it showed the highest incidence of human cases of leishmaniasis over the past 2 years. Standard formula was used to calculate the sample size (n=51) with a predicted prevalence of 3.4%, using the standard formula $n = Z^2P(1-P)/d^2$.

Basic information of the dogs, dog owners and *Leishmania*-positive patients were collected, using an interviewer-administered questionnaire. One millilitre (1ml) of blood was collected from dogs living in and around (50m radius) *Leishmania*-positive patients' households. Sample collection was continued until 51 dogs were included.

Testing for *L.donovani* specific rK39 antibodies were done using rK39 rapid diagnostic test kits (InBios International, USA) according to the prescribed procedure.

Results:

4 out of 51 dogs (prevalence = 7.84%) were found to be serologically positive for *L.donovani* specific rK39 antibodies.

Conclusions:

The study confirms the exposure of dogs to *L.donovani* in the study area. Investigations are continuing for isolation of parasites from these possible animal reservoirs.

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