A NOTE ON CANINE ECTOPARASITIC INFESTATIONS FROM LUDHIANA, PUNJAB

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A total of sixty seven samples of skin scrapings were examined from dogs with visible dermatological lesions presented at Small Animal Clinics, GADVASU, Ludhiana during 2010 and revealed prevalence of mange mites as 26.86%. The prevalence of *Demodex canis* and *Sarcoptes scabei* var *canis* was 16.41 and 10.44 per cent, respectively. The prevalence of *S. scabei* var *canis* was significantly higher ($p<0.05$) in young one under 6 months of age. Also the prevalence of mange mites was significantly higher ($p<0.01$) in male dogs and *D. canis* was recorded only from males.

Keywords: Canine, epidemiology, mange mite.

Introduction

Ectoparasites particularly mange mites are the common and pivotal cause of skin diseases in dogs. The most frequent canine mites reported in the India are *Demodex canis* and *Sarcoptes scabiei* var. *canis* (Kumar *et al*., 2006). Canine demodiciosis caused by *Demodex canis* could occur either in a localized or a generalized form with the clinical manifestation of pustular and squamous type of skin lesions with worldwide distribution (Soulsby, 1982). Sarcoptic mange is a highly contagious non-seasonal and pruritic skin condition caused by infestation with *S. scabiei* var. *canis*, a burrowing mite, which is transmitted by direct contact between dogs. Keeping in view, the importance of these dermatological conditions the present study was undertaken to record the prevalence of the mange mite infestations from clinical cases in and around Ludhiana, Punjab.

Materials & Methods

A total of 67 samples of skin scrapings were examined from dogs with visible dermatological lesions presented at Small Animal Clinics, GADVASU, Ludhiana during 2010. Deep skin scrapings were collected in 10% KOH solution from the periphery of lesions with a scalpel blade after moistening the area with mineral oil and scraped until capillary bleeding was visible. The scrapped material was heated upto boiling in 10% KOH, placed on glass slides and examined microscopically for the presence of mites. The presence of 1 mite at any developmental stage of dogs examined was considered to be a positive result. Identification of mites was performed on the basis of descriptions provided by Soulsby (1982).

Statistical analysis: Statistical analysis was performed on data by SPSS 13.0 software by applying Chi Square test to record the significance of the differences between various groups.

Table 1: Prevalence of mange mites in dogs

Parameter	Category	Total samples	Positive samples	*Sarcoptes* sp.	*Demodex canis*
Age	<6 month	17	7 (41.17)	4 (23.52)	3 (17.64)
	>6 month	50	11 (22.0)	3 (6.0)	8 (16.0)
	Total	**67**	**18 (26.86)**	**7 (10.44)**	**11 (16.41)**
	χ^2 value		2.37	4.167**	0.025
Sex	Male	47	17 (36.17)	6 (12.76)	11 (23.40)
	Female	20	1 (5.0)	1 (5.0)	-
	Total	**67**	**18 (26.86)**	**7 (10.44)**	**11 (16.41)**

	χ^2 value		6.94*	0.904	5.6**

p<0.01, ** p<0.05

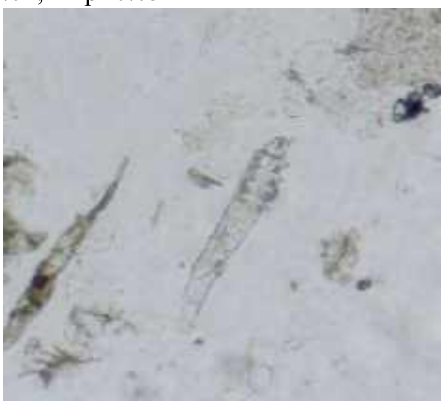

Fig 1. ***Demodex canis***

Fig 2. ***Sarcoptes scabei*** **var** ***canis***

Results and Discussion

A total of 67 skin scrapings were examined and the prevalence of mange mites was recorded as 26.86%. The mange mites encountered were *Demodex canis* (Fig 1) and *Sarcoptes scabei* var *canis* (Fig 2) and their prevalence was 16.41 and 10.44 per cent, respectively (Table 1). The higher prevalence of demodicosis can be attributed to the fact that *D. canis* is considered to be a part of the normal fauna of the canine skin and is present in small numbers in most healthy dogs which leads to clinical disease following immunosuppresion or stress due to any reason (Scott *et al*., 2001).

Similar to the present study, higher prevalence rate of mange mites has been reported recently from Anand, Gujarat (Solanki *et al.*, 2007) however, lower prevalence of demodicosis has been reported from Orissa (Nayak *et al.*, 1997) and Patna, Bihar (Kumar *et al.*, 2006) in the past. The prevalence of *S. scabei* var *canis* was significantly higher (p<0.05) in young one under 6 months of age. Also the prevalence of mange mites was significantly higher (p<0.01) in male dogs and *D. canis* was recorded only from males. Similarly higher prevalence of demodicosis has been reported from male dogs (Kumar *et al.*, 2006; Solanki *et al.*, 2007) previously from India.

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