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Epidemiological Studies of *Canine dermatoses* in and around Kolkata, West Bengal, India

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A B S T R A C T

A study was undertaken to determine the prevalence of different dermatological conditions in dogs during the period from May 2018 to April 2019. Out of total 19,668 dogs, presented in the Belgachia Veterinary Clinics, 1420 (7.22%) dogs were diagnosed as dermatoses. Most of the skin disorders were observed during rainy season (9.32%) followed by summer season (7.49%). The dogs above one year of age were the most affected (74.6%). Both sexes of dogs were infected by skin disorders (female: 58.4% and male: 41.6%). Results of the present study revealed that Labrador were more predisposed to various dermatological disorders (29.9%) followed by Spitz (13.7%).

Introduction

Dermatitis is the term used to denote the inflammatory condition of the skin regardless of the cause. In small animal clinics, dermatological disorders constitute a majority of cause and it has been estimated that between 12-75% of the small animals seen in the average practice have skin problems as a chief or concurrent owner complain (Nesbitt, 1983; Scott, 1985; Scott and Paradis, 1990; Feijo *et al.,* 1998). Pet owners always desire to have pets with healthy fur. The purpose of this study was to document the prevalence of different skin diseases in dogs to look for epidemiological factors associated with their occurrence.

Therefore, the objective of this study to determine the prevalence of clinical conditions in dogs presented at Belgachia Veterinary Clinics, under the Department of Veterinary Clinical Complex, Faculty of Veterinary and Animal Sciences, West Bengal University of Animal and Fishery Sciences, Kolkata.

These data are helpful for the veterinarians and the pet owners to take the necessary preventive measure to control these diseases among dogs. The pet food,

pharmaceutical and pet accessories industries are also interested in knowing where to focus their marketing strategies, and this demographic information are very much important for this marketing policy.

Materials and Methods

All the dogs which were brought to the Belgachia Veterinary Clinics, Kolkata during the period from May 2018 to April 2019 were screened for dermatological infections. Categorization of various dermatological disorders was done on the basis of etiological agent as ticks/fleas/lice, mites (ectoparasites), bacterial, fungal and mixed infection. In addition to etiology, season, age, sex, and breed was also taken into consideration.

Results and Discussion

The present study was conducted from May 2018 to April 2019. Out of total 19,668 dogs, presented in the Belgachia Veterinary Clinics, 1420 (7.22%) dogs were diagnosed suffering from dermatoses. Month wise distribution of cases showed an increasing trend of skin affections with maximum cases (176) in the month July to September. Sarma *et al.*, (2013) reported only 5.6% cases affected with skin diseases during a study period of 3 months whereas Shyma and Vijayakumar (2012) reported 12% dermatological problems in one year in dogs. Prevalence of skin disorders ranging from 15-25% in dogs has earlier been reported (Scott *et al.*, 2001; Hill *et al.*, 2006). Increasing trend of dermatological disorders observed in this study may probably be due to higher temperature and optimum moisture in the environment which always facilitate the etiological agents of dermatoses for growth and development. Month-wise categorization of different skin affections (Table 1) showed maximum number of skin infections (11.21%) in the month of July. Least number of infective cases (4.97%) was recorded in the month of March. The findings of present study were in close conformity with the report of Khurana *et al.*, (2016). Different skin affections showed a positive correlation with monthly ambient temperature. Broadly, a year was divided into four seasons namely Winter (January to March), Summer (April to June), Rainy (July to September) and Autumn (October-December) in this part of the country. Although, skin affections were recorded throughout the year but cases were more in rainy season followed by summer, autumn and then winter (Table 2).

Highest occurrence of skin disorders (74.6%) was observed in dogs above one year of age (Table 3) followed by dogs of 7 months to 1 year years of age.

Among the skin disorders-affected dogs, maximum number was of females (58.4%) (Table 4). However, sex susceptibility need to be critically analyzed with the fact that people in the particular region prefer female dogs over males. The higher prevalence of canine dermatoses in female might be due to stress factors like puberty, estrus, pregnancy, parturition and lactation leading to less immunity to the body.

Highest number (29.9%) of canine dermatoses was recorded in the breed *i.e.* Labrador, followed by Spitz (13.7%) (Fig 1). In higher age group of Labrador species having thick hair coat always facilitates optimum moisture in rainy season after bath which is a favorable condition for growth and multiplication of organism on the cutaneous surface.

There is a need for comprehensive planning and formulation of a food which will meet to maintain good health of the canine skin. Further studies are required to understand the nature and resistance pattern of different causative agents against commonly available antibiotic drugs.

Table.1 Showing month-wise prevalence of canine dermatoses

Sl. No.	Month	Total number of dogs treated	Total number of Dermatoses in dogs	Percentage
1	May	1604	108	6.7
2	June	1521	126	8.2
3	July	1569	176	11.21
4	August	1595	125	7.8
5	September	1323	117	8.84
6	October	1202	119	9.90
7	November	1490	102	6.8
8	December	1803	107	5.9
9	January	1999	108	5.40
10	February	1823	102	5.59
11	March	1990	99	4.97
12	April	1749	131	7.48

Table.2 Showing season wise prevalence of canine dermatoses

Sl. No.	Season	Total Number of dermatoses in dog	Total number of dogs treated	Percent
1.	Winter	309	5812	5.31
2.	Summer	365	4874	7.49
3.	Rainy	418	4487	9.32
4.	Autumn	328	4495	7.30
	Total	1420	19,668	

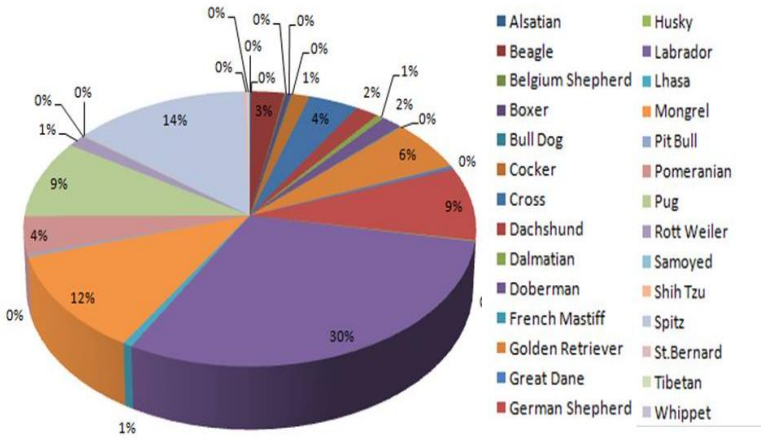
Table.3 Showing age wise distribution of canine dermatoses

Sl. No.	Age	Number of dermatoses in dogs	Percent
1.	Up to 6 months	166	11.7
2.	7 months – 1year	195	13.7
3.	Above 1 year	1059	74.6
Total		1420	100

Table.4 Showing sex wise distribution of canine dermatoses

Sl. No.	Sex	Total number of dermatoses in dogs	Percent
1.	Female	829	58.4
2.	Male	591	41.6
	Total	1420	100.0

Fig.1 Showing breeds wise distribution of canine dermatoses



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