

PREVALENCE OF CANINE BACTERIAL DERMATITIS IN WEST BENGAL

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Skin is the largest organ of the body and may represent 12 to 24% of an animal body weight (Lovell and Getty, 1964). The skin and hair coat condition is used as an indicator of a dog's general health, as smooth and glossy hair, reflex healthy skin. Skin has many function like an enclosing barrier and providing environmental protection regulating temperature, providing pigments and vitamin-D and sensory perception (Aiello, 2000). Prevalence of skin disease in domestic animals is very common. Most of the skin diseases are infectious and contagious, therefore prompt, practical and precise diagnosis is of outmost importance in their treatment and control. Skin diseases fall into two main categories mainly parasitic and non parasitic diseases. Both the parasitic and bacterial infections are common dermatological problems in dog (Chakrabarti, 2006). Present study was conducted to deals with influence of predisposing factors like age, sex, breed and season in the occurrence of canine bacterial skin dermatitis in and around Kolkata, West Bengal.

Materials and Methods

The present study was carried out in various clinics of West Bengal like Belgachia Dog Ward, Mohanpur Clinics and Private clinics in and around Kolkata etc. Total number of 8981 clinical cases was screened, out of which 1003 dogs having dermatological clinical manifestation like alopecia, dandruff, sneezing, pruritis, scratching, crusting, and different patches on the body and ear wax etc. Total number of 136 dogs found positive for bacterial dermatitis, out of 1003 numbers of animals having dermatological problems presented in the clinics during the study period. Epidemiological data were collected and analyzed as per standard method.

Results and Discussion

Total number of 8981 clinical cases was screened, out of which 1003 dogs having dermatological problems and 136 dogs found positive for bacterial infection. The overall occurrence of bacterial skin infection in the presence study was 13.6 %, (Table No.1). The finding of the presence study is in close agreement with the findings of Udayasree,

(2004); Udayasree and Usha, (2005); Shyma and Vijaya kumar, (2012) who also recorded 12.71 and 13.61 percent occurrence of canine pyoderma.

Age wise occurrence:

Animals were divided into 4- groups' viz. 1 to 6 months, 6 months to 1 year, 1 to 6 years and above 6 years. The highest occurrence is noticed in dogs of 1 to 3 years of age (46.32%) followed by 6 months to 1 year of age (27.20%), 1 to 6 years of age (16.18%) and above 6 years (10.30%) among the infected animals. Age is an important predisposing factor to be considered in canine pyoderma. Impetigo is seen in puppies; Idiopathic folliculitis of short hair breeds is seen in young adults and pyoderma is seen in German Shepherd Dog older than 4 to 5 years. The findings is in agreement with the findings of Bloom and Rosser, (2001); Shyma and Vijay Kumar, (2012); Udayasree, (2004). The age wise prevalence of the canine bacterial infection depicted in Figure- 1 and Table no.- 2.

Table no. 1

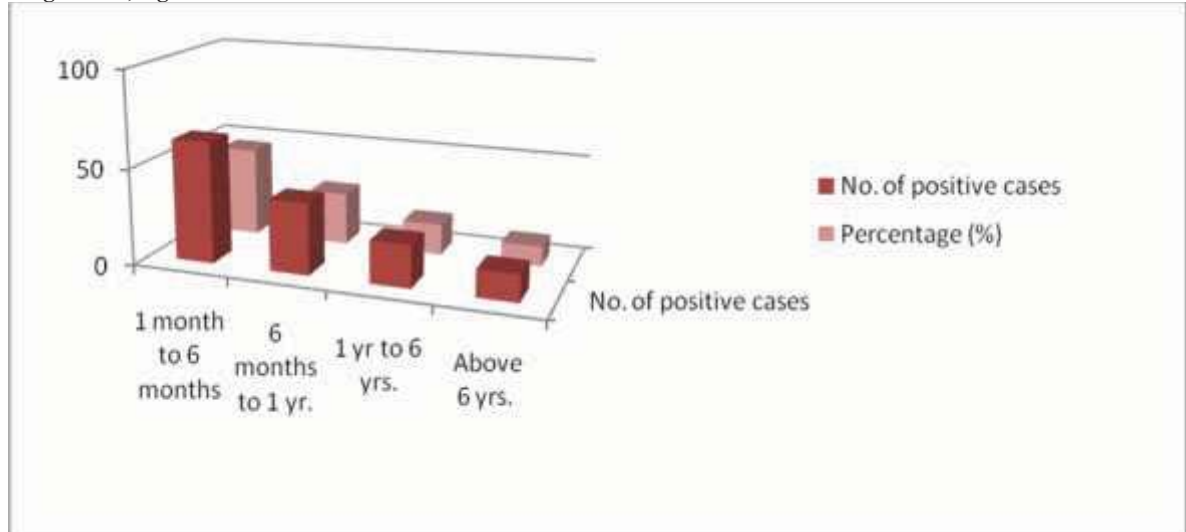
Number of cases examined	Dermatological problem identified	Bacterial dermatitis	Percentage (%)
8981	1003	136	13.6

Table no. 2, Age wise occurrence:

Age group	No. of cases positive for bacterial infections	Percentage (%)
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1 month to 6 months	63	46.32
6 months to 1 yr.	37	27.20
1 yr to 6 yrs.	22	16.18
Above 6 yrs.	14	10.30

Figure - 1, Age wise occurrence:



Breed wise occurrence:

Out of 10 breeds highest occurrence was observed in German shepherd (21.35%) followed by Labrador (16.67%), Golden Retriever (15.15%), Dachshund (12.50%), Pug (10.34%), Boxer (9.61%), Spitz (9.09%), Dalmatian (5.97%) and Doberman (5.81%). In dogs several breeds are predisposed to different types of pyoderma or to the possible underlying causes. The highest prevalence in German shepherd might be due to long hair of the animals which causes moisture and high temperature in skin folds favouring the multiplication of bacteria. These findings corroborated with the findings of the previous workers Udayasree, (2004) and Senturk *et al.* (2005). The breed wise prevalence of the

canine bacterial infection depicted in Figure - 2. and Table no.-3.

Sex wise occurrence:

Out of 1003 in bacterial skin infected dogs 78 (57.35%) females were positive for bacterial dermatitis and 58 (42.65%) male dogs were positive for bacterial dermatitis. There is no sex predisposition for developing pyoderma with the exception of vulvar skin fold pyoderma in females or the underlying causes with the exception of an endocrinopathy due to a testicular sertoli cell tumour in males. These findings is in close agreement of the findings with Aujla *et al.*, (1997). The sex wise prevalence of the canine bacterial infection depicted in Figure - 3 and Table no.-4.

Table no. 3. Breed wise occurrence:

Breed	No. of cases examined	Positive cases	Percentage
Golden Retriever	165	25	15.15
Dachshund	112	14	12.50
Boxer	52	5	9.61
Spitz	88	8	9.09
Dalmatian	67	4	5.97
German shepherd	178	38	21.35
Labrador	168	28	16.67
Pug	87	9	10.34
Doberman	86	5	5.81

Figure - 2. Breed wise occurrence:

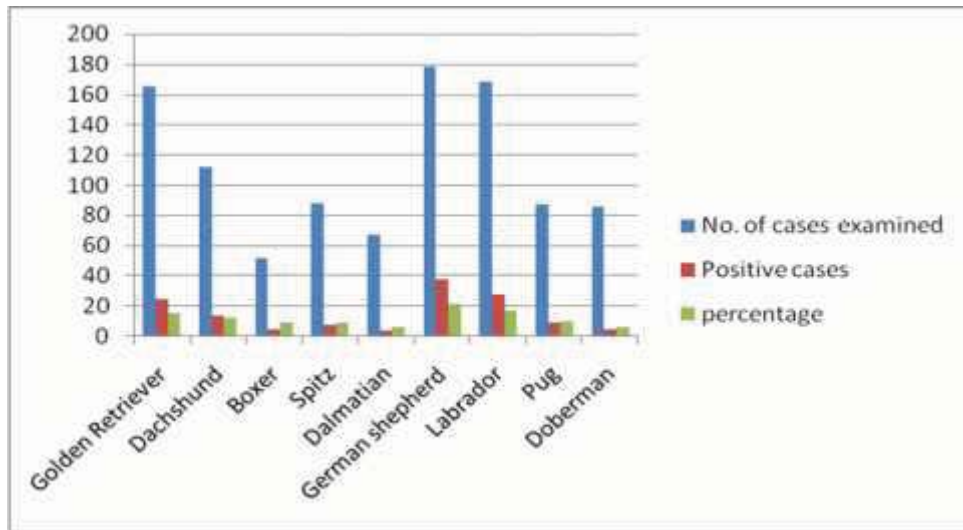
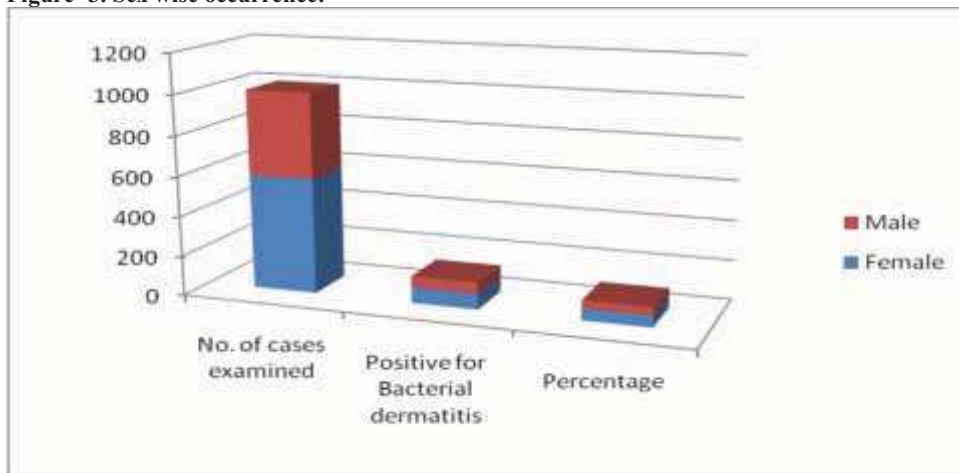


Table no. 4. Sex wise occurrence:

Sex	No. of cases examined	Positive for Bacterial dermatitis	Percentage
Female	580	78	57.35
Male	423	58	42.65

Figure- 3. Sex wise occurrence:



Season wise occurrence:

Bacterial skin infection highest in summer (March to June) season (19.2%) followed by winter (November to February) season (10.7%) and Rainy (July to October) season (9.38%). The seasonal variation observed might be due to environmental effect on dog skin in the months of summer were most number of cases are presented in the clinics with dermatological problems. These findings are in accordance with the findings of Shyma and Vijay Kumar, (2012). The season wise prevalence of the canine bacterial infection depicted in Figure – 4 and Table no.-5.

Disease wise occurrence:

Out of 8981 clinical cases were examined and found positive for dermatological problems in 1003 number of dogs(11.17%) out of which 361(35.99%) were positive for Ectoparasite infestation followed by 281 (28.01%) Fungal infection, 136 (13.6%) Bacterial infection, 131 (13.06%) Nutritional causes, 68 (6.8%) Malassezia infection and 26 (2.59%) other diseases. These findings are in close agreement of the findings with Senturk *et al.* (2005). The disease wise prevalence of the canine bacterial infection depicted in Figure – 5 and Table no.-6.

Table no. 5. Month wise occurrence:

Month	No. of cases examined	No. of cases positive	Percentage (%)
Winter season (Nov.-Feb.)	383	41	10.7
Summer (March-June)	375	72	19.2
Rainy (July-Oct.)	245	23	9.38

Figure - 4, Month wise occurrence:

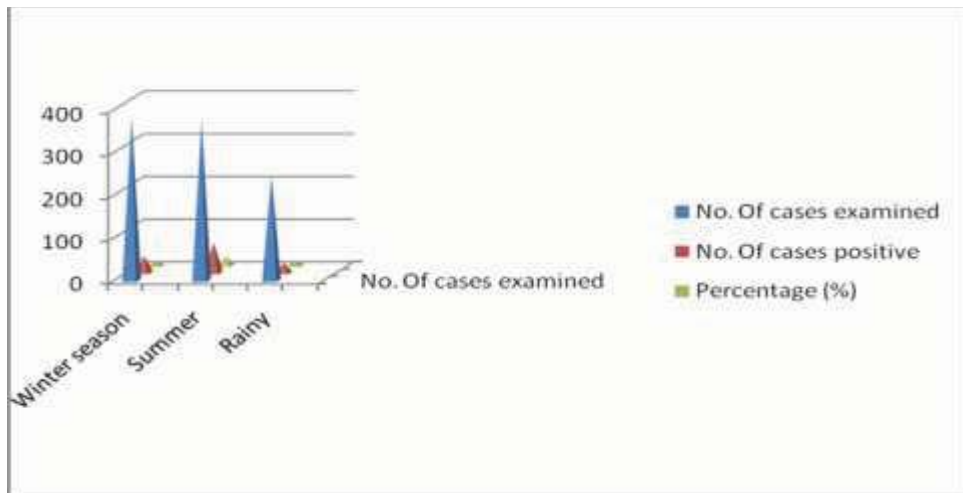
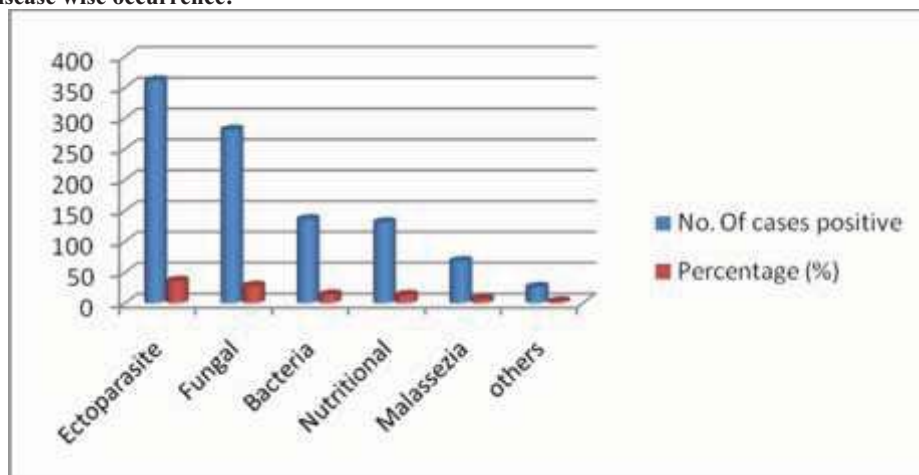


Table no. 6. Disease wise occurrence:

Disease	No. of cases positive	Percentage (%)
Ectoparasite	361	35.99
Fungal	281	28.01
Bacteria	136	13.60
Nutritional	131	13.06
Malassezia	68	6.80
others	26	2.59

Figure - 5, Disease wise occurrence:



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