



EPIDEMIOLOGICAL STUDIES ON BACTERIAL SKIN INFECTIONS IN DOGS*

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Abstract

Epidemiological investigation on bacterial dermatitis in dogs revealed an overall occurrence of 13.71%, highest occurrence reported in the month of April in dogs of one, two three years old. Sex wise and breed wise occurrence was as follows ie, German Shepherd female dogs were more susceptible to bacterial dermatitis compared to many other breeds.

Keywords: *Epidemiology, month wise, age wise, sex wise, breed wise, management*

Bacterial skin infections are one of the common dermatological problems in dogs. This study deals with the influence of predisposing factors like age, sex, breed and season in the occurrence of bacterial skin infections in dogs at Thrissur.

Materials and Methods

The present study was carried out in the Department of Veterinary Epidemiology and Preventive Medicine, College of Veterinary and Animal Sciences, Mannuthy for a period of one year during February 2009 to January 2010. Dogs presented to Veterinary Hospitals of Mannuthy and Kokkalai with clinical signs suggestive of bacterial dermatitis were included in the study. Epidemiological data were collected as per proforma and analyzed (Snedecor and Cochran, 1994).

Results & Discussion

Occurrence

A total of 7771 dogs were brought to University Veterinary teaching Hospitals Mannuthy (3034) and Kokkalai (4737) from February 2009 to January 2010 with different clinical illness. Of these 933 animals presented with dermatological problems in the clinics, and 127 animals were treated for bacterial dermatitis. The overall occurrence of bacterial skin infections in the present study was 13.61 per cent of the total cases presented with dermatological problems. This accounted for 1.63 per cent of the total canine cases presented in the two University Veterinary hospitals at Mannuthy and Kokkalai. It is in close accordance with the finding of Udayasree and Usha (2005) who reported 12.71 per cent incidence of canine pyoderma (Fig.1).

Age-wise occurrence

The highest occurrence was noticed in dogs of one to three years of age (42.85 %) followed by one month to six months of age (23.83 %), six months to one year of age (14.28 %), one year to six years of age and above six year (9.52 % each) among the infected animals. It is in agreement with Krick and Scott (1989), Aujla *et al*, (1997), Bloom and Rosser (2001) and Udayasree and Usha (2005) (Fig.2).

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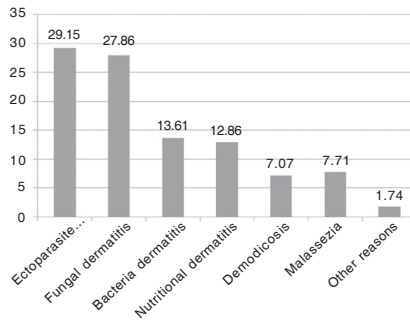


Fig. 1. Occurrence of dermatological problems

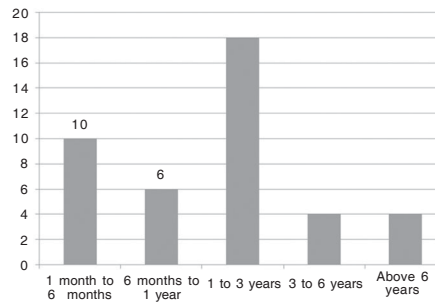


Fig. 2. Age wise occurrence

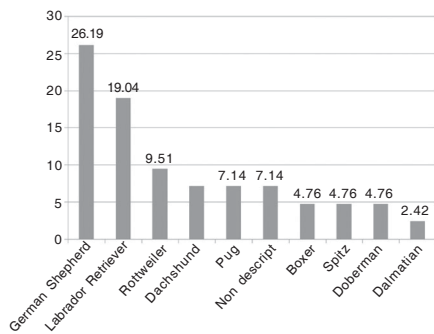


Fig. 3. Breed wise occurrence

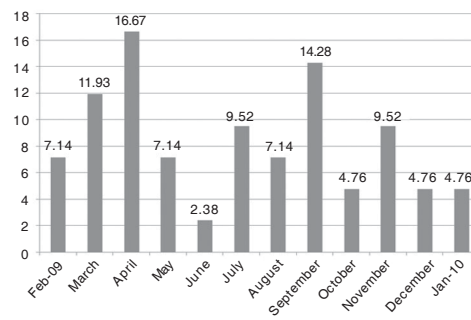


Fig. 4. Month wise occurrence

Breed-wise occurrence

Highest occurrence was observed in German Shepherd (26.19 per cent), followed by Labrador Retriever (19.04 per cent), Rottweiler (9.51 per cent), non descript, Dachshund, Pug, Bull Mastiff (7.14 per cent each), Boxer, Spitz and Doberman (4.76 per cent each) and Dalmatian (2.42 per cent). The highest incidence of pyoderma in German shepherd breed was reported by Wisselink *et al.* (1988), Scott and Pardis (1990), Udayasree (2004), and Senturk *et al.* (2005) (Fig.3).

Sex-wise occurrence

Among the infected group of 42 animals, 24 animals were females (57.14 per cent) and 18 animals were males (42.86 per cent). Females are more affected when compared to males and this finding is in close accordance with Aujla *et al.* (1997) and Udayasree and Usha (2005).

Month wise occurrence

Bacterial skin infection was reported throughout the year. However more number of cases were brought to the hospitals during the month of April (16.67 %), followed by September (14.28 %), March (11.93 %), July,

November (9.52 % each), February, August, May (7.14 %), October, December, January (4.76 % each) and June (2.38 %). The higher incidence of bacterial skin infection was reported in April might be due to summer season and followed by September, the breeding season (Fig.4).

Management

In infected group of 42 animals, 26 (61.90 %) were given bath regularly and 16 animals (38.10 %) were not given regular bath. Majority of the animals (85.72 %) of animals were kept in kennel and only 14.28 per cent were kept strictly indoors. Regular cleaning of kennel was practiced by 69.45 per cent of owners. Disinfectants/ chemicals/washing powder was used for cleaning kennel by 61.11 per cent of owners. Regular grooming was practiced only in 28.58 per cent of animals in the infected group. Ectoparasites were present in 11 animals (26.19 %). Majority of the animals in the infected group were dewormed and vaccinated regularly (66.7 % and 52.38 % respectively).

Grooming was not practiced in majority of animals (71.42 %) in the infected group. Similar observation was made by Hill and Moriello (1994) that poor grooming may alter

the cutaneous climate sufficiently to predispose animal to pyoderma. Majority of the owners (61.11 %) used some disinfectants to clean the kennel. Primary irritants (disinfectants, oil, and fertilizers) would be more common problems in animals and produce reactions on skin in areas of flank, feet, rear of the leg (Muller *et al.*, 1989).

Clinical signs

Majority of the animals brought with the complaint of pruritus (47.61 %) and alopecia (71.42 %). It varied from localized to generalised. Generalized lesions observed in 17 animals (40.48 %) and localized lesions in 25 animals (59.52 %).

Description of clinical signs and lesions in bacterial dermatitis is not uniform in different reports.

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