

Research article

Prevalence of pet animal diseases at Savar upazila, Dhaka district, Bangladesh: A cross-sectional study

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ABSTRACT

A cross-sectional study was conducted to determine the prevalence of pet animal diseases at Upazila Livestock Office and Veterinary Hospital, Savar, Dhaka, Bangladesh. A total of 55 cases of pet animals were recorded during the study period from 8th August 2022 to 6th October 2022. Among 55 pet animals, dogs, cats, and rabbits were 28 (50.91%), 22 (40%), and 5 (9.09%) respectively. Skin diseases were the most prevalent among other diseases in pets. The total prevalence of diseases in dogs was 64.28%, among which skin diseases accounted for 32.14%, followed by dog biting at 14.28%, canine distemper (CD) at 10.71%, and infectious canine hepatitis (ICH) at 7.14%. Similarly, the occurrence of skin diseases in cats was noted to be 31.82%, whereas conjunctivitis was 18.18%, and salmonellosis was 13.64%. In rabbits, the prevalence was recorded for skin diseases (60%), and conjunctivitis (20%). The findings of this study provide valuable insights into the understanding of prevalent diseases in pet animals, potentially facilitating the implementation of preventive and control measures.

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1. INTRODUCTION

In Bangladesh, rearing pets is not a widespread practice among the population. However, in contemporary times, urbanization has escalated significantly, thus leading to an increment in the practice of keeping pets, mostly in urban areas. Pet animals have been observed to have a positive impact on the physical, social, and cognitive well-being of both children and their owners. (Dohoo et al., 1998; Robertson et al., 2000). Besides the positive impacts, pets are also responsible for transmitting a diverse range of diseases including parasitic, bacterial, fungal,

and viral which pose a danger to both animal and public health (Plant et al., 1996; Kornblatt and Schantz, 1980). The propagation of these diseases depends on various factors, including housing, management, understanding of pet owners regarding disease transmission and proliferation, among other factors. Several studies have been conducted to investigate the prevalence of different diseases in domestic animals and birds in various regions of Bangladesh (Tarafder and Samad, 2010; Mahmud et al., 2014). Nonetheless, there has been a dearth of investigations carried out on the occurrence of diseases and disorders in pet

animals (Parvez et al., 2014). Therefore, the present study was designed to investigate the prevalence of diseases in pet animals at Savar upazila, Dhaka, Bangladesh.

2. MATERIALS AND METHODS

Study location

The study was carried out at Upazila Livestock Office and Veterinary Hospital, Savar, Bangladesh. Pet animals were brought to the hospital from different locations of Savar upazila for diagnosis and treatment.

Study design

The study was conducted with a cross-sectional study design.

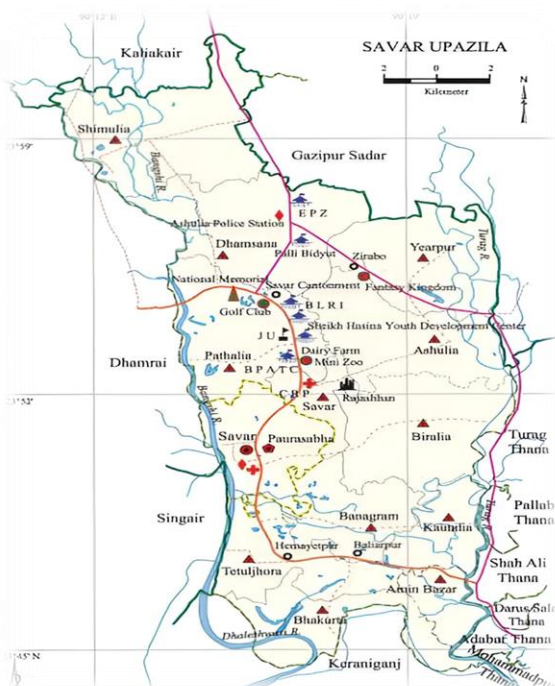


Figure 1. Map of Savar upazila, Dhaka, Bangladesh

Study duration

The investigation was carried out from 8th August 2022 to 6th October 2022 (a period of 2 months) to determine the prevalence of pet animal diseases.

Data collection

A total of 55 pet animals (dog, cat, and rabbit) came to the hospital for diagnosis and

treatments during this period. Both general and clinical data were recorded in the hospital's register book.

Clinical examination and diagnosis

In the hospital, the patients were examined and treated, with initial diagnoses based on clinical assessments. The diagnostic process considered owner complaints, patient histories, clinical observations, and presenting symptoms.

Data analysis

The data were derived from the hospital's register book, imported, and then analyzed using Microsoft Excel (MS Excel, 2010).

3. RESULTS AND DISCUSSION

Table 1 represents the prevalence of different diseases in pet dogs. The overall prevalence rate for skin diseases was 32.14% followed by dog biting (14.28%), CD (10.71%), and ICH (7.14%). The prevalence rates for various diseases were also observed across different age ranges and sex. The study revealed that the highest prevalence rate for skin diseases was observed in young (0-6 months) and adult dogs (>12 months). No cases of ICH were found in younger (0-6 months) pet dogs during our study period. According to the sex-based prevalence, males were overall found to be more susceptible than females. The findings of the current study were supported by earlier studies conducted in different areas of Bangladesh (Rahman, 1988; Freeman et al., 2006; Sarker et al., 2015; Singh et al., 2014; Meler et al., 2008).

Table 2 shows a comprehensive overview of the prevalence rate of various diseases in pet cats, including skin diseases (31.82%), conjunctivitis (18.18%), and salmonellosis (13.64%). Likewise to the pet dogs, skin ailments were found to be more prevalent among pet cats of all ages. Our current findings are consistent with previous studies conducted in various regions of Bangladesh (Parvez et al., 2014; Chaudhari and Atsanda, 2002; Hossain and Kayesh, 2014; Sultana et al., 2016).

Table 3 represents the occurrence of different diseases in pet rabbits including skin diseases (60.00%), and conjunctivitis (20.00%). Sultana

et al. (2016) reported pyoderma, hairballs, skin diseases, and conjunctivitis as prevalent diseases of the pet rabbits in Dhaka city, Bangladesh. However, no clinical cases of pyoderma and

hairball in rabbits were found during our study period.

Table 1: Prevalence of diseases in pet dogs and their distribution in relation to age and sex

Name of diseases	Prevalence % N=28	Age			Sex	
		0-6 months N=9	7-12 months N=7	>12 months N=12	Male N=16	Female N=12
Skin diseases	32.14 (9)	44.44 (4)	14.28 (1)	33.33 (4)	37.5 (6)	25 (3)
Dog biting	14.28 (4)	11.11 (1)	14.28 (1)	16.67 (2)	12.5 (2)	16.67 (2)
CD	10.71 (3)	11.11 (1)	14.28 (1)	8.33 (1)	12.5 (2)	8.33 (1)
ICH	7.14 (2)	0	14.28 (1)	8.33 (1)	6.25 (1)	8.33 (1)
Total	64.28 (18)	66.66 (6)	57.13 (4)	66.66 (8)	68.75 (11)	58.33 (7)

CD= Canine Distemper, ICH= Infectious Canine Hepatitis

Table 2. Prevalence of diseases in cats and their distribution in relation to age and sex

Name of diseases	Prevalence % N=22	Age			Sex	
		0-6 months N=6	7-12 months N=7	>12 months N=9	Male N=10	Female N=12
Skin diseases	31.82 (7)	33.33 (2)	28.57 (2)	33.33 (3)	30 (3)	33.33 (4)
Conjunctivitis	18.18 (4)	16.67 (1)	14.28 (1)	22.22 (2)	20 (2)	16.67 (2)
Salmonellosis	13.64 (3)	16.67 (1)	14.28 (1)	11.11 (1)	10 (1)	16.67(2)
Total	63.64 (14)	66.67 (4)	57.13 (4)	66.66 (6)	60 (6)	66.67 (8)

Table 3. Prevalence of diseases in rabbits and their distribution in relation to age and sex

Name of diseases	Prevalence % N=5	Age			Sex	
		0-6 months N=2	7-12 months N=1	>12 months N=2	Male N=3	Female N=2
Skin diseases	60 (3)	50 (1)	100 (1)	50 (1)	66.67 (2)	50 (1)
Conjunctivitis	20 (1)	0 (0)	0 (0)	50 (1)	0 (0)	50 (1)
Total	80.00 (4)	50 (1)	100 (1)	100 (2)	66.67 (2)	100 (2)

4. CONCLUSION

Conclusively, this research was carried out to determine the occurrence of different diseases in pets at Savar upazila, Bangladesh. The most common diseases recorded in pets were skin diseases, CD, dog biting, ICH, conjunctivitis, etc. Skin diseases have been identified to have a significant impact on the well-being of pet animals. Lack of awareness among pet owners and the absence of control measures have contributed to their widespread prevalence. In order to address, mitigate, and manage these

diseases in pets, it is crucial to enhance the awareness of their owners through targeted campaigns, implement appropriate therapeutic interventions, and timely vaccinate their animals.

Despite providing insights into the prevalence of pet animal diseases, this study is limited by a small sample size and short study duration due to a lack of funding. To assess a more comprehensive understanding of disease occurrence and their risk factors in pets, future studies in this area with a larger sample size are

strongly recommended to adopt better preventive and management strategies.

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