

The Prevalence of Clinical Diseases in Dogs of Sylhet Sadar, Bangladesh

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A case control study is conducted to ascertain the prevalence of Dog diseases of 511 pet dogs presented to the Sylhet Veterinary Hospital and Veterinary clinics of Sylhet Agricultural University, during the one year period from June 2013 – June 2014. 7 categories were recorded in these pet dogs and their variation in prevalence was analyzed on the basis of age and sex. Age wise prevalence included, at the age of 0-6 months Canine Parvovirus Infection/Canine Parvovirus Enteritis (CPV) (33.33%), Canine Distemper or Hard Pad Disease (CD) (5.69%), Rabies (4.88%), Infectious canine hepatitis (ICH) (5.69%), Tetanus (4.06%), Skin Diseases (35.77%), Gastro Intestinal Parasites (8.94%). At 7-12 months CPV (37.67%), CD (6.16%), Rabies (5.48%), ICH (4.11%), Tetanus (4.79%), Skin Diseases (31.50%), Gastro Intestinal Parasites (8.22%). At the age above 12 months CPV (11.16%), CD (5.37%), Rabies (19.00%), ICH (10.33%), Tetanus (7.02%), Skin Diseases (9.50%), Gastro Intestinal Parasites (14.46%). Sex wise prevalence included, in female disease prevalence of CPV (21.39%), CD (6.47%), Rabies (7.46%), ICH (6.97%), Tetanus (5.47%), Skin Diseases (22.88%), Gastro Intestinal Parasites (13.93%) and, in male disease prevalence of CPV (25.80%), CD (5.16%), Rabies (14.51%), ICH (7.74%), Tetanus (5.80%), Skin Diseases (21.61%), Gastro Intestinal Parasites (9.68%). The prevalence of the diseases of one year study period from high to low rates included- CPV (24.07%), Skin Diseases (22.11%), Rabies (11.74%), Gastro Intestinal Parasites (11.35%), ICH (7.44%), CD (5.67%) and Tetanus (5.67%).

Keywords: Canine Parvovirus Infection/Canine Parvovirus Enteritis (CPV), Canine Distemper or Hard Pad Disease (CD), Infectious canine hepatitis (ICH).

1. INTRODUCTION

Dogs are the most successful canids, adapted to human habitation worldwide including Bangladesh. Dogs are important because people use for several different tasks & jobs, like police dogs, therapy, guard dogs, herding and much more. Most dogs are just loveable companions (people who have dogs live longer). So dog health is important and they should be free from any types of diseases. That is pretty much why a dog is called "Man's Best Friend". They have contributed to physical, social and emotional well-being of their owners, particularly children [1,2]. Dogs can help to lower stress, alleviate loneliness, improve health and encourage people to exercise more and enjoy the outdoors. They improve feelings of safety - both in the home and in public places. Dogs act to break down the barriers in society and help people to meet and make friends.

They are wonderful companions that engender caring and responsibility in our children. They are more often regarded as members of the family. Dogs serve us not only as companions but also as workers. They have proven to be invaluable in a number of roles, including such examples as guide dogs for the blind, hearing and assistance dogs for the disabled, sniffer dogs used by police and customs and farm dogs used for stock work. It has got high sense of smell. Therefore, it is trained for different work. It not only deceives its owner. That is why people like taming it to guard their house. It not only protects the house from thieves or strangers but also it guards sheep and other domestic animals from carnivorous animals. A well trained dog is used in films, circus shows and investigating different crimes. It is also used to conserve wildlife. However, in spite of the beneficial effects, close bond between dogs and humans remain a major threat to public health, with dogs harboring a bewildering number of infective stages of disease causative agents transmissible to man and other domestic animals [2,3]. Furthermore, pet keeping is usually associated with certain responsibilities like housing, disease management and responsible for pet ownership with negative consequences for public health when neglected [4]. Since pets share the same environment with humans, they constitute an important reservoir of zoonotic diseases [5]. Household pets have been found to play a direct role in transmitting zoonosis [5,6].

2. OBJECTIVES

1. To determine the prevalence of clinical diseases in dogs of Sylhet Sadar.
2. To differentiate the disease prevalence.
3. To know the age wise prevalence of the diseases.

3. MATERIALS AND METHODS

Data is collected regularly visiting the Hospital. During this period we have collected the information's of the number and types of diseased animal with their age and sex and also collected the information's of the number of total dog population that entered into the Hospital. During the one year study period, a total of 511 dogs were brought in the Hospital. All the patients were first registered in the patient register book including date, age, sex, breed and complaint of the owners. Detailed clinical examinations of each of the patient were carried out. Vaccination history, travel history, diet history, environmental history, birth history and potential source of intoxication. Visual examination, pulse, respiration and rectal temperature recording and examination of the different organs and system of the body by using the clinical methods of palpation, percussion and auscultation are conducted.

4. DATA BASE INFORMATION

The different clinical and laboratory methods were used to study the prevalence of clinical diseases and disorders of dogs in Sylhet Veterinary Hospital and Veterinary clinics of Sylhet Agricultural University during June 2013 to June 2014. A total of 7 categories of diseases were recorded in 511 pet dogs. At the age of 0-6 months 121 animals were found diseases among 123 animals. At 7-12 months 143 animals were found diseased among 146 animals. 186 animals were found diseased among 242 animals of above 12 months of age. Table 1 gives the age wise and Table 2 gives the

sexwise prevalence of clinical diseases in dogs. 7 categories of diseases were recorded in these pet dogs and their variation in prevalence was analyzed on the basis of age. Age wise prevalence included, at the age of 0-6 months CPV (33.33%), CD (5.69%), Rabies (4.88%), ICH (5.69%), Tetanus (4.06%), Skin Diseases (35.77%), Gastro Intestinal Parasites (8.94%). At 7-12 months CPV (37.67%), CD (6.16%), Rabies (5.48%), ICH (4.11%), Tetanus (4.79%), Skin Diseases (31.50%), Gastro Intestinal Parasites (8.22%). At the age above 12 months CPV (11.16%), CD (5.37%), Rabies (19.00%), ICH (10.33%), Tetanus (7.02%), Skin Diseases (9.50%), Gastro Intestinal Parasites (14.46%). Sex wise prevalence included, in female disease prevalence of CPV (21.39%), CD (6.47%), Rabies (7.46%), ICH (6.97%), Tetanus (5.47%), Skin Diseases (22.88%), Gastro Intestinal Parasites (13.93%) and, in male disease prevalence of CPV (25.80%), CD (5.16%), Rabies (14.51%), ICH (7.74%), Tetanus (5.80%), Skin Diseases (21.61%), Gastro Intestinal Parasites (9.68%). The data about dogs can be summarized as:

Total Population=511

Diseased Case=450

Diseased animals at 0-6 Months of age=121/ 123

Diseased animals at 7-12 Months of age =143/ 146

Diseased animals above 12 Months of age =186/ 242

Male= 170/201

Female= 280/310

Table 1: Age wise prevalence of Dog diseases in one year (June 2013-June2014).

Age group	0-6M (n=123)		7-12M (n=146)		Above 12M (n=242)		Total
	case	Prev. (%)	case	Prev. (%)	case	Prev. (%)	
CPV	41	33.33	55	37.67	27	11.16	123
CD	7	5.69	9	6.16	13	5.37	29
Rabies	6	4.88	8	5.48	46	19.00	60
ICH	7	5.69	6	4.11	25	10.33	38
Tetanus	5	4.06	7	4.79	17	7.02	29
Skin Diseases	44	35.77	46	31.50	23	9.50	113
Gastro Intestinal Parasites	11	8.94	12	8.22	35	14.46	58
Total	121		143		186		450

Table 2: Sex wise prevalence of Dog diseases in one year (June 2013-June2014).

Sex Diseases	Male N=201		Female N=310	
	Case	Prev. (%)	Case	Prev. (%)
CPV	43	21.39	80	25.80
CD	13	6.47	16	5.16
Rabies	15	7.46	45	14.51
ICH	14	6.97	24	7.74
Tetanus	11	5.47	18	5.80
Skin Diseases	46	22.88	67	21.61
Gastro Intestinal Parasites	28	13.93	30	9.68
Total	170		280	

In Table 3 the prevalence of the diseases of one year study period from high to low rates included- CPV (24.07%), CD (5.67%), Rabies (11.74%), ICH (7.44%), Tetanus (5.67%), Skin Diseases (22.11%) and Gastro Intestinal Parasites (11.35%).

Table 3: Prevalence of Dog diseases in one year (June 2013-June2014).

Diseases	Prevalence in one year N=511	
	Case	Prev. (%)
CPV	123	24.07
CD	29	5.67
Rabies	60	11.74
ICH	38	7.44
Tetanus	29	5.67
Skin Diseases	112	22.11
Gastro Intestinal Parasites	58	11.35

During the study period It has been found some surgical and other cases beside these diseases. Common diseases that are found during the study period are given below:-

1. Canine Parvovirus Infection/Canine Parvovirus Enteritis (CPV).
2. Canine Distemper or Hard Pad Disease (CD).
3. Rabies.

4. Infectious canine hepatitis (ICH).
5. Tetanus.
6. Skin Diseases (Dermatophilosis/Ringworm).
7. Gastro Intestinal Parasites.

5. CONCLUSION

The results of the current study revealed that Canine Parvovirus (CPV) infection has the highest prevalence in the study area that is 24.07%. On the other hand Canine Distemper (CD) and Tetanus has the lowest prevalence that is 5.67%. As a whole the prevalence of the diseases of one year study period from high to low rates included-CPV (24.07%), Skin Diseases (22.11%), Rabies (11.74%), Gastro Intestinal Parasites (11.35%), ICH (7.44%), CD (5.67%), and Tetanus (5.67%). So to reduce the disease prevalence the animal owner should be aware of the disease condition and time to time vaccination is a must to reduce the disease prevalence.

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