

Chapter-I

INTRODUCTION

Cats have been domesticated since prehistoric times, perhaps for 5,000 years or more (Forsyth *et al*). There is evidence (from a Neolithic grave on Cyprus) of some sort of association with humans dating back to the 8th century B.C. (Caughley *et al*).

In Bangladesh rearing of pet animal was not popular in the recent past rather than treating them as street animals. However, recently pet animals have been rearing in urban cities of Bangladesh for the purpose of physical, social and emotional well being of their owners, particularly children (Dohoo *et al*, 1998, Robertson *et al*, 2000).

There are many diseases which are common to cats. If ignored some of those diseases may turn out to be fatal. But most of the diseases of cat can be prevented by taking care of simple things such as by keeping cat indoor, by proper vaccination programme, by maintaining deworming schedule and hygienically look after of cat, by keeping proper management system for rearing of cat.

A lot of diseases and disease conditions are frequently occurred in cats. Some of the common cat diseases are Upper respiratory infections, Rabies, Feline panleukopenia, Feline infectious peritonitis, Diarrhoea, Ringworm, Cat-scratch disease, Toxoplasmosis, Vomiting, Allergy, Heartworm, Gastrointestinal disorders, Herpes virus infection, Feline influenza virus infection. Eye diseases of cat includes Glucoma, Infectious keratoconjunctivitis, Melanoma, Cataracts, Progressive Retinal Atrophy, Sudden blindness.

Pet keeping like cat is usually associated with certain responsibilities like housing, disease management, vaccination schedule and responsible for pet ownership with negative consequences for public health when neglected (William *et al*, 2002). Cats may be the most frequent household pets around the world, but there are also many other vertebrates that share our household environment (Bruno and Chomel, 1992). Although

cats and man have lived together generally to their mutual benefit for thousands of years, since cats share the same environment with humans, they constitute an important reservoir of zoonotic diseases(kornblatt and Schantz,1980).Household pets have been found to play a direct role in transmitting zoonosis(Dada *et al.*,1979).

Different kinds of pet animals have been importing from abroad in recent years. Therefore, rearing of pet animals like cat, dog, rabbit etc are becoming popular in urban cities of Bangladesh day by day. In rural area rearing of pet animals like cat are not as unban area in Bangladesh. The pet owners do not have sufficient knowledge about rearing system, vaccination schedule, feeding habit, normal behavior and diseases of cat. There had been few studies on diseases of cat in Bangladesh. Therefore the study was designed to investigate the descriptive analysis of different diseases of cat.

Therefore my study was undertaken at SAQTVH with the following objectives:

- ❖ To know the proportion of different diseases of cat
- ❖ To know the epidemiology of the diseases
- ❖ To know which age group of animals are more infected
- ❖ To know which breeds of cat are more infected

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MATERIALS AND METHODS

❖ *Study area and study period*

The study was conducted on cat at SAQTVH which is situated at south-east part of Bangladesh and geographically surrounded by the Bay of Bangle at west and south, Chittagong hill tract at east and plane area at north and central part. The study work was conducted at the department of Medicine and Surgery, Chittagong Veterinary and Animal Science University, khulshi from 1st July 2016 to 31st December 2016

❖ *Study design and animal selection*

The animals were selected from SAQTVH which were brought from different areas around Chittagong. Total number of cat animals were recorded through preset questionnaire survey.

❖ *Data collection*

Domesticated cat those who bought to SAQTVH were considered to be reference population. Information was taken from the record sheet of SAQTVH.

❖ *Data analysis*

Data were entered into the Microsoft Excel Program 2007. Data were sorted and checked the integrity before exporting to STATA for epidemiological analysis. Descriptive analysis was performed on qualitative and quantitative results of diseases of cat. The results were presented as frequency and percentage. The set level of significance was ≤ 0.05 . A value of $p < 0.05$ was considered significant in all statistical tests at confidence interval 95%

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Result and Discussion

The prevalence of diseases was measured in cat which has bought into SAQTVH, CVASU from different areas around Chittagong. A total of 116 cases were recorded .Some variables were considered in this study such as : Age, sex, deworming, wound, lesion sites etc. All of the cats were divided into three breed groups such as local, cross and Parsian. The numbers of local breeds were 80, cross breed were 22 and parsian breed 14 respectively.

Sl No.	Variables	Numbers
1.	Less than 12 months	70
2.	12 Months	9
3.	More than 12 months	37

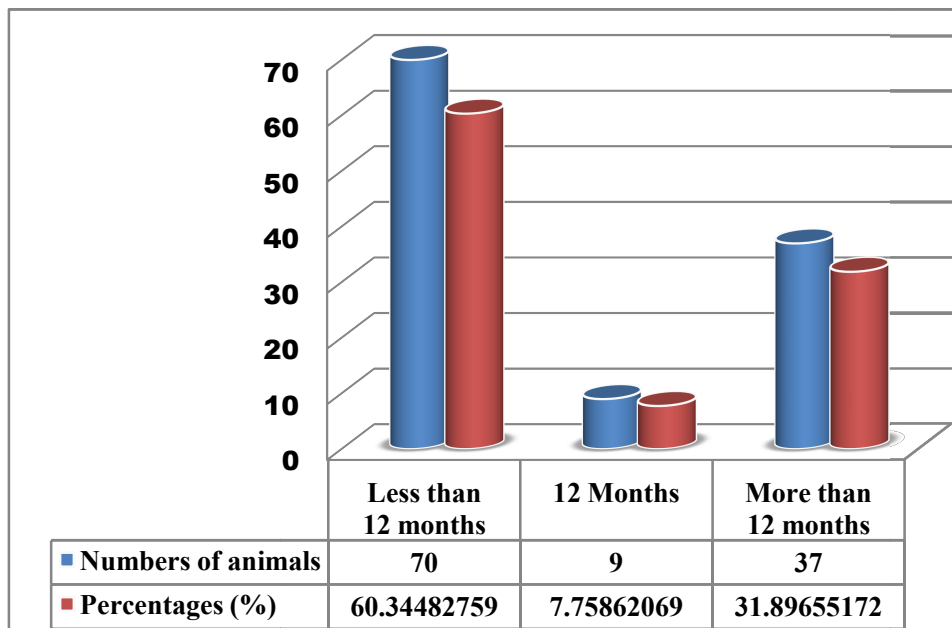


Fig : Graphical presentation of Number of Disease in cat according to Age pattern

The above graph represent the which age group of cat are more infected in different disease. The animal of less than 12 months of age are more infected and the animal of 12 month age are less infected.

Table 1: Proportion of eye problem in different breeds of cat

Breed code	No	Yes	Total
1	73 96.05	3 3.95	76 100
2	23 92.00	2 8.00	25 100
3	14 93.33	1 6.63	15 100
Total	110 94.83	6 5.17	116 100

Pearson $\chi^2=0.7083$, Pr=0.702

The proportion of eye problem among different breeds of cat are shown in table-1. Among them ,prevalence of eye problem in local breed were 3.95%,cross breed were 8% and parsian breed 6.63% respectively. The P value of test 0.702.According to the P value of t-test 0.702 means there were no difference in different breeds.

Here,

1=Local breed

2=Cross breed

3=Parsian breed

Table-2: Proportion of lameness among different breeds of cat

Lameness	Freq	Percent	Cum.
No	106	91.38	91.38
Yes	10	8.62	8.62
Total	116	100	100

Breed code	No	Yes	Total
1	68 89.47	8 10.53	76 100
2	25 100	0 0.00	35 100
3	13 86.67	2 13.33	15 100
Total	106 91.38	10 8.62	116 100.00

Pearson $\chi^2=3.1317$, P value=0.209

The proportion of lameness among different breeds of cat are shown in table-2. Among 116 number of cats only 10 cats have lameness problem. The prevalence of lameness were 8.62%. Among these three breeds, prevalence of lameness in local breeds were 10.53%, local breeds 0% and parsian breeds 8.62% respectively. The P value of the test is 0.209 which have no significant effect.

Here,

1= Local breed

2= Cross breed

3= Parsian breed

Table -3: Proportion of diarrhoea/dehydration among different breeds of cat

Breed code	No	Yes	Total
1	72 94.74	4 5.26	76 100.00
2	21 84.00	4 16.00	25 100.00
3	13 86.67	2 13.33	15 100.00
Total	106 91.38	10 8.62	116 100.00

Pearson $\chi^2=3.2386$, Pr=0.198

The proportion of diarrhea /dehydration among different breeds of cat are shown in table-3. Among 116 cases diarrhea /dehydration were recorded in 10 cases. Among different breeds of cat, prevalence of diarrhea /dehydration in local breeds were 5.26%, cross breeds were 16% and parsian breeds were 13.33% respectively. The P value of the test is 0.198 which have no significant effect.

Here,

1= Local breed

2= Cross breed

3= Parsian breed

Table-4: Proportion of wound among different breeds of cat

Breed code	No	Yes	Total
1	68 89.47	8 10.53	76 100.00
2	22 88.00	3 12.00	25 100.00
3	15 100.00	0 0.00	15 100.00
Total	105 90.52	11 9.48	116 100.00

Pearson chi²=2.921,P value=0.185

The proportion of wound among different breeds of cat are shown in table-4. Among 116 cases wound problem were recorded in 11 cases. Among different breeds of cat, prevalence of wound in local breeds were 10.53%, cross breeds were 12% and parsian breeds were 0% respectively. The P value of the test is 0.185 which have no significant effect.

Here,

1= Local breed

2= Cross breed

3= Parsian breed

Table-5: Proportion of respiratory problem among different breeds of cat

Respiratory problem	Freq	Percent	Cum.
No	109	93.97	93.97
Yes	7	6.03	6.03
Total	116	100.00	100.00

Breed code	No	Yes	Total
1	72 94.74	4 5.26	76 100.00
2	24 96.00	1 4.00	25 100.00
3	13 86.67	2 13.33	15 100.00
Total	109 93.97	7 6.03	116 100.00

Pearson chi²=1.3683, Pr=0.242

The proportion of respiratory problem among different breeds of cat are shown in table-5. Among 116 cases respiratory problem were recorded in 7 cases. Among different breeds of cat, prevalence of respiratory problem in local breeds were 5.26%, cross breeds were 4% and parsian breeds were 13.33% respectively. The P value of the test is 0.242 which have no significant effect

Here,

1= Local breed

2= Cross breed

3= Parsian breed

Table-6: Proportion of external parasite among different breeds of cat

Parasite	Freq	Percent	Cum.
No	106	91.38	91.38
Yes	10	8.62	8.62
Total	116	100.00	100.00

Breed code	No	Yes	Total
1	71 93.42	5 6.58	76 100.00
2	23 92	2 8.00	25 100.00
3	12 80.00	3 20.00	15 100.00
Total	106 91.38	10 8.62	116 100.00

Pearson $\chi^2=2.8801$, Pr=0.237

The proportion of external parasite among different breeds of cat are shown in table-6. Among 116 cases external parasitic problem were recorded in 10 cases. Among different breeds of cat, prevalence of external parasite in local breeds were 6.58%, cross breeds were 8% and parsian breeds were 20% respectively. The P value of the test is 0.237 which have no significant effect.

Here,

1= Local breed

2= Cross breed

3= Parsian breed

Table-7: Percentage of different groups of drug

Parameter	No	Yes	Percent
Antibiotic	104	13	11.11
Anthelmintic	91	26	22.22
NSAID	110	7	5.98
Nutritional drug	104	13	11.11
Vaccination	108	9	7.69

Percentage of different groups of drug used in different diseases of cat are shown in table-7. Among 116 cases, antibiotic were used in 11.11% cases, anthelmintic were used in 22.22% cases, NSAID were used in 5.98% cases, Nutritional drug were used in 11.11% cases and vaccination were done in 7.69% cases respectively.

The result of disease prevalence in cats was supported by the earlier work made in different areas of Bangladesh (Parvaz et al.2014; Chaudhari and Atsandav 2002). In the study prevalence of wound of problem was higher but in the previous study endoparasitic disease was higher. This deviation may be due to geographical condition and in Chittagong city owners are relatively more conscious about their pet deworming.

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CONCLUSION

This study was conducted to identify the prevalence of various diseases of cat bought at SAQTVH, Chittagong Veterinary and Animal Sciences University. The most common diseases found at SAQTVH are Respiratory disease, Herpes virus infection, Gastritis, Lameness, Eye problem, Ectoparasitic infestation, Cystitis, Diarrhoea and dehydration. Skin diseases are significantly affecting the health of all cat and lack of awareness of pet owners about the significance of the problems also responsible for this disease condition. Increasing the awareness of pet owners about the management and disease problems of their pet animals through special campaigns, proper therapeutic managements of the diseases and time to time vaccination of pet animals are important for prevention and control of the diseases of cat.

LIMITATION

Being an undergraduate student I have faced some problem during the study

Due to short duration of study period, It is not possible for me establish the relationship of disease with season. Season is an important factor for different parasitic disease. All treatment response information could not properly collect due to miss communication of patient owner.

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The Author

BIOGRAPHY

I am Sourav Sen, Intern student of Chittagong Veterinary and Animal Sciences University. I am native to Chittagong. I have completed my Secondary School Certificate with GPA-5.00 from R.K.R High School and Higher Secondary School Certificate with GPA-5.00 from B.N College Chittagong. My favourite hobby is reading books and I want to be an honest person. I am interested in find out new techniques for the development of veterinary science.