CHAPTER-I

**INTRODUCTION**

Dogs are the most successful canids, adapted to human habitation worldwide including Bangladesh. They have contributed to physical, social and emotional well-being of their owners, particularly children (Dohoo and Robertson, 2000).

Anthropologists believe the most significant benefit would have been the use of dogs' sensitive sense of smell to assist with the hunt (Paul and Colin, 2002).The relationship between the presence of a dog and success in the hunt is often mentioned as a primary reason for the domestication of the wolf, (Vsea and Mauri, 2004). and a 2004 study of hunter groups with and without a dog gives quantitative support to the hypothesis that the benefits of cooperative hunting was an important factor in wolf domestication “The most widespread form of interspecies bonding occurs between humans and dogs and the keeping of dogs as companions, particularly by elites, has a long history (Mark, D.1997). However, pet dog populations grew significantly after World War II as suburbanization increased (Mark, D.1997). In the 1950s and 1960s, dogs were kept outside more often than they tend to be today (Franklin, A. 2006). (Using the expression "in the doghouse" to describe exclusion from the group signifies the distance between the doghouse and the home) and were still primarily functional, acting as a guard, children's playmate, or walking companion. From the 1980s, there have been changes in the role of the pet dog, such as the increased role of dogs in the emotional support of their owners (Katz, John, 2003). People and dogs have become increasingly integrated and implicated in each other's lives (Haraway, Donna, 2003) to the point where pet dogs actively shape the way a family and home are experienced( Power and Emma, 2008). Dogs have lived and worked with humans in so many roles that they have earned the unique nickname, "man's best friend, (Warrensburg, 2006), a phrase used in other languages as well. They have been bred for herding livestock (Williams and Tully, 2007), hunting (Serpell and James, 1995), rodent control (Dewey, 2002) guarding, helping fishermen with nets, detection dogs, and pulling loads, in addition to their roles as companions (Dewey and Bhagat, 2002).Service dogs such as guide dogs, utility dogs, assistance dogs, hearing dogs, and psychological therapy dogs provide assistance to individuals with physical or mental disabilities. Some dogs owned by epileptics have been shown to alert their handler when the handler shows signs of an impending seizure, sometimes well in advance of onset, allowing the owner to seek safety, medication, or medical care (Dalziel, D. J. et al. 2006).Owners of dogs often enter them in competitions such as breed conformation shows or sports, including racing, sledding and agility competitions

Dog" is the common use term that refers to members of the subspecies Canis lupus familiaris (canis, "dog"; lupus, "wolf"; familiaris, "of a household" or "domestic"). The term can also be used to refer to a wider range of related species, such as the members of the genus Canis, or "true dogs", including the wolf, coyote, and jackals, or it can refer to the members of the tribe Canini, which would also include the African wild dog, or it can be used to refer to any member of the family Canidae, which would also include the foxes, bush dog, raccoon dog, and others. (Rasmussen, G. S. A. 1999). Some members of the family have "dog" in their common names, such as the raccoon dog and the African wild dog. A few animals have "dog" in their common names but are not canids, such as the prairie dog.

The English word "dog" comes from Middle English dogge, from Old English docga, a "powerful dog breed" (Canis Familiaris And Canis Familiarus Domesticus, 2008).The term may possibly derive from Proto-Germanic dukkōn, represented in Old English finger-docce ("finger-muscle") ( Elmar, S. 2002). The word also shows the familiar petname diminutive -ga also seen in frogga "frog", picga "pig", stagga "stag", wicga "beetle, worm", among others. ( Dictionary of Etymology, 2007). Due to the archaic structure of the word, the term dog may ultimately derive from the earliest layer of Proto-Indo-European vocabulary, reflecting the role of the dog as the earliest domesticated animal (Mallory, J. R. 1991).

In 14th-century England, "hound" (from Old English: hund) was the general word for all domestic canines, and "dog" referred to a subtype of hound, a group including the mastiff. It is believed this "dog" type of "hound" was so common, it eventually became the prototype of the category "hound".(Vlatko, B. 2008). By the 16th century, dog had become the general word, and hound had begun to refer only to types used for hunting. (Dirven and Verspoor, 2004). Hound, cognate to German Hund, Dutch hond, common Scandinavian hund, and Icelandic hundur, is ultimately derived from the Proto-Indo-European kwon- "dog", found in Sanskrit kukuur,([Sanskrit Dictionary for Spoken Sanskrit](http://spokensanskrit.de/index.php?script=HK&beginning=0+&tinput=+dog&trans=Translate&direction=AU)). Welsh ci (plural cwn), Latin canis, Greek kýōn, and Lithuanian šuõ. (AHDEL , 2006).

In breeding circles, a male canine is referred to as a dog, while a female is called a bitch (Middle English bicche, from Old English bicce, ultimately from Old Norse bikkja). A group of offspring is a litter. The father of a litter is called the sire, and the mother is called the dam. Offspring are, in general, called pups or puppies, from French poupée, until they are about a year old. The process of birth is whelping, from the Old English word hwelp (cf. German Welpe, Dutch welp, Swedish valpa, Icelandic hvelpur) (Jean, G. 1978). The term "whelp" can also be used to refer to the young of any canid, or as a (somewhat archaic) alternative to "puppy".Dogs are the most successful canids, adapted to human habitation worldwide including Bangladesh. They havecontributed to physical, social and emotional well-being of their owners, particularly children (Dohoo and Robertson, 2000). 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 (Robertson, 2000; Molyneux, 2004).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 (William et al.,2002). Since pets 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 (Kornblatt and Schantz, 1980). Review of literatures revealed that at least 36important zoonotic diseases are acquired from dogs worldwide, although the occurrence of some important zoonotic diseases acquired from dogs have reported from Bangladesh but the inland reports on this aspect are very limited (Tarafder and Samad, 2010). The objective of this study was-

(a) To determine the prevalence of clinical diseases in pet dogs for treatment.

(b) To assess the risk perception of clinical infection of dogs.

CHAPTER-II

**REVIEW OF LITERATURE**

**Diseases of dog**

Dog diseases are a continuously updated selection of diseases and other conditions found in the dog. Some of these diseases are unique to dogs or closely related species, while others are found in other animals. Dogs get sick from parasites, viruses, bacteria, protozoa, and fungus.

In some cases, these diseases and infestations are fatal unless caught early and treated. Sometimes they sow the seeds of death or debilitation years down the road by causing chronic illness or damaging organs.

**Viral diseases of dog**

* Canine parvovirus is a sometimes fatal gastrointestinal infection that mainly affects puppies. It occurs worldwide.
* [Canine coronavirus](http://en.wikipedia.org/wiki/Canine_coronavirus) is a gastrointestinal disease that is usually asymptomatic or with mild clinical signs. The signs are worse in puppies
* Canine distemper is an often fatal infectious disease that mainly has respiratory and neurologic signs.
* Canine influenza is a newly emerging infectious respiratory disease. Up to 80 percent of dogs infected will have symptoms, but the mortality rate is only 5 to 8 percent.
* [Infectious canine hepatitis](http://en.wikipedia.org/wiki/Infectious_canine_hepatitis) is a sometimes fatal infectious disease of the liver.
* [Canine herpes virus](http://en.wikipedia.org/wiki/Canine_herpesvirus) is an infectious disease that is a common cause of death in puppies less than three weeks old.
* [Pseudo rabies](http://en.wikipedia.org/wiki/Pseudorabies) is an infectious disease that primarily affects swine, but can also cause a fatal disease in dogs with signs similar to rabies.

**Bacterial diseases of dog**

* [Brucellosis](http://en.wikipedia.org/wiki/Brucellosis) is a sexually transmitted [bacterial](http://en.wikipedia.org/wiki/Bacteria) disease that can cause [uveitis](http://en.wikipedia.org/wiki/Uveitis), abortion, and [orchitis](http://en.wikipedia.org/wiki/Orchitis) in dogs.
* [Leptospirosis](http://en.wikipedia.org/wiki/Leptospirosis) is an infectious disease caused by a [spirochaete](http://en.wikipedia.org/wiki/Spirochaete). Symptoms include liver and kidney failure and [vasculitis](http://en.wikipedia.org/wiki/Vasculitis).
* [Lyme disease](http://en.wikipedia.org/wiki/Lyme_disease) is a disease caused by [Borrelia burgdorferi](http://en.wikipedia.org/wiki/Borrelia_burgdorferi), a [spirochaete](http://en.wikipedia.org/wiki/Spirochaete), and spread by ticks of the genus [Ixodes](http://en.wikipedia.org/wiki/Ixodes). Symptoms in dogs include acute arthritis, anorexia and lethargy. There is no rash as is typically seen in humans.
* [Ehrlichiosis](http://en.wikipedia.org/wiki/Ehrlichiosis) is a disease caused by [Ehrlichia canis](http://en.wikipedia.org/wiki/Ehrlichia_canis) and spread by the brown dog tick, [Rhipicephalus sanguineous](http://en.wikipedia.org/wiki/Rhipicephalus_sanguineous). Signs include fever, vasculitis, and low blood counts.
* [Rocky Mountain spotted fever](http://en.wikipedia.org/wiki/Rocky_Mountain_spotted_fever) is a [rickettsial](http://en.wikipedia.org/wiki/Rickettsia) disease that occurs in dogs and humans. It is caused by [Rickettsia rickettsii](http://en.wikipedia.org/wiki/Rickettsia_rickettsii) and spread by ticks of the genus [Dermacentor](http://en.wikipedia.org/wiki/Dermacentor). Signs are similar to human disease, including anorexia, fever, and [thrombocytopenia](http://en.wikipedia.org/wiki/Thrombocytopenia).
* .
* [Kennel cough](http://en.wikipedia.org/wiki/Kennel_cough) is an infectious respiratory disease which can be caused by one of several viruses or by [Bordetella bronchiseptica](http://en.wikipedia.org/wiki/Bordetella_bronchiseptica). It most commonly occurs in dogs in close confinement such as kennels.

**Fungal diseases of dog**

* Blastomycosis is a fungal disease caused by Blastomyces dermatitidis" that affects both dogs and humans. Dogs are ten times more likely to be infected than humans. The disease in dogs can affect the eyes, brain, lungs, skin, or bones
* [Histoplasmosis](http://en.wikipedia.org/wiki/Histoplasmosis) is a fungal disease caused by [Histoplasma capsulatum](http://en.wikipedia.org/wiki/Histoplasma_capsulatum) that affects both dogs and humans. The disease in dogs usually affects the lungs and small intestine
* [Coccidioidomycosis](http://en.wikipedia.org/wiki/Coccidioidomycosis) is a fungal disease caused by [Coccidioides immitis](http://en.wikipedia.org/wiki/Coccidioides_immitis) that affects both dogs and humans. In dogs signs include coughing, fever, lethargy, and anorexia. Many cases include lameness due to bome lesions
* [Cryptococcosis](http://en.wikipedia.org/wiki/Cryptococcosis) is a fungal disease caused by [Cryptococcus neoformans](http://en.wikipedia.org/wiki/Cryptococcus_neoformans) that affects both dogs and humans. It is a rare disease in dogs, with cats seven to ten times more likely to be infected. The disease in dogs can affect the lungs and skin, but more commonly the eye and central nervous system
* [Ringworm](http://en.wikipedia.org/wiki/Ringworm) is a fungal skin disease that in dogs is caused by [Microsporum canis](http://en.wikipedia.org/wiki/Microsporum_canis) (70%), [Microsporum gypseum](http://en.wikipedia.org/wiki/Microsporum_gypseum) (20%), and Trichophyton mentagrophytes (10%). Typical signs in dogs include hair loss and scaly skin.
* [Sporotrichosis](http://en.wikipedia.org/wiki/Sporotrichosis) is a fungal disease caused by [Sporothrix schenckii](http://en.wikipedia.org/wiki/Sporothrix_schenckii) that affects both dogs and humans. It is a rare disease in dogs, with cat and horse infections predominating in veterinary medicine. The disease in dogs is usually nodular skin lesions of the head and trunk.
* [Aspergillosis](http://en.wikipedia.org/wiki/Aspergillosis) is a fungal disease that in dogs is caused primarily by [Aspergillus fumigatus](http://en.wikipedia.org/wiki/Aspergillus_fumigatus). Infection is usually in the nasal cavity. Typical signs in dogs include sneezing, nasal discharge, bleeding from the nose, and ulcerations of the nose.
* [Pythiosis](http://en.wikipedia.org/wiki/Pythiosis) is a disease cause by a [water mould](http://en.wikipedia.org/wiki/Water_mould) of the genus [Pythium](http://en.wikipedia.org/wiki/Pythium), [P. insidiosum](http://en.wikipedia.org/wiki/Pythium_insidiosum). It occurs primarily in dogs and horses, but can also affect humans. In dogs it affects the gastrointestinal system and lymph nodes, and rarely the skin.
* [Mucormycosis](http://en.wikipedia.org/wiki/Mucormycosis) is a collection of fungal and mold diseases in dogs including pythiosis, zygomycosis, and lagenidiosis that affect the gastrointestinal tract and skin

**Protozoal diseases of dog**

* [Giardiasis](http://en.wikipedia.org/wiki/Giardiasis) is an intestinal infection in dogs caused by the protozoa [Giardia lamblia](http://en.wikipedia.org/wiki/Giardia_lamblia). The most common symptom is diarrhea.
* [Coccidiosis](http://en.wikipedia.org/wiki/Coccidiosis) can be caused by a variety of coccidian organisms in dogs, most commonly.
* [Isospora](http://en.wikipedia.org/wiki/Isospora). There are usually no symptoms, but diarrhea and weight loss may occur [Leishmaniasis](http://en.wikipedia.org/wiki/Leishmaniasis) is spread by the [sandfly](http://en.wikipedia.org/wiki/Sandfly), and in the dog as well as human has both cutaneous and visceral forms. The dog is considered to be the reservoir for human disease in the Americas
* [Babesiosis](http://en.wikipedia.org/wiki/Babesiosis) is spread by members of the family [Ixodidae](http://en.wikipedia.org/wiki/Ixodidae), or hard ticks. The two species of the genus [Babesia](http://en.wikipedia.org/wiki/Babesia) that affect dogs are [B. canis](http://en.wikipedia.org/w/index.php?title=Babesia_canis&action=edit&redlink=1) and [B. gibsoni](http://en.wikipedia.org/w/index.php?title=Babesia_gibsoni&action=edit&redlink=1). Babesiosis can cause
* [Hemolytic anemia](http://en.wikipedia.org/wiki/Hemolytic_anemia) in dogs. [Neosporosis](http://en.wikipedia.org/w/index.php?title=Neosporosis&action=edit&redlink=1) is caused by [Neospora caninum](http://en.wikipedia.org/wiki/Neospora_caninum)Other Bad Things to Happen to an Animal
* [Protothecosis](http://en.wikipedia.org/wiki/Protothecosis) in dogs is caused by a mutant form of [green algae](http://en.wikipedia.org/wiki/Green_algae) and is usually disseminated. Symptoms include weight loss, [uveitis](http://en.wikipedia.org/wiki/Uveitis), [retinal detachment](http://en.wikipedia.org/wiki/Retinal_detachment).

**Parasitic diseases of dog**

**Intestinal** [**parasites**](http://en.wikipedia.org/wiki/Parasitism)

* [Hookworms](http://en.wikipedia.org/wiki/Hookworm) are a common parasite of dogs. Most common is [Ancylostoma caninum](http://en.wikipedia.org/wiki/Ancylostoma_caninum), followed by [Uncinaria stenocephala](http://en.wikipedia.org/wiki/Uncinaria_stenocephala) and [A. braziliense](http://en.wikipedia.org/wiki/Ancylostoma_braziliense). Signs include diarrhea, vomiting, and weight loss.
* [Tapeworms](http://en.wikipedia.org/wiki/Tapeworm) are also common and in the dog are usually [Dipylidium caninum](http://en.wikipedia.org/wiki/Dipylidium_caninum), which is spread by ingesting [fleas](http://en.wikipedia.org/wiki/Flea) and [lice](http://en.wikipedia.org/wiki/Lice). Also common is [Taenia pisiformis](http://en.wikipedia.org/wiki/Taenia_pisiformis), spread by ingesting rabbits and rodents. Rare tapeworm infections are caused by species of the genera [Echinococcus](http://en.wikipedia.org/wiki/Echinococcus), [Mesocestoides](http://en.wikipedia.org/w/index.php?title=Mesocestoides&action=edit&redlink=1), and [Spirometra](http://en.wikipedia.org/wiki/Spirometra). There are usually no symptoms.[]](file:///C%3A%5CUsers%5CDELL%5CDesktop%5CMAHMU%5CList%20of%20dog%20diseases%20-%20Wikipedia%2C%20the%20free%20encyclopedia.htm#cite_note-Ettinger_1995-6)
* [Roundworms](http://en.wikipedia.org/wiki/Roundworm) infecting the dog include [Toxocara canis](http://en.wikipedia.org/wiki/Toxocaridae) and [Toxascaris leonina](http://en.wikipedia.org/wiki/Toxascaris_leonina). Signs are usually mild, but may include diarrhea, pot-bellied appearance, poor growth, and vomiting.
* [Fleas](http://en.wikipedia.org/wiki/Flea) in dogs cause itching and hair loss. The most common flea in dogs is the [cat flea](http://en.wikipedia.org/wiki/Cat_flea), [Ctenocephalides felis](http://en.wikipedia.org/wiki/Ctenocephalides_felis), followed by the [dog flea](http://en.wikipedia.org/wiki/Dog_flea), [C. canis](http://en.wikipedia.org/wiki/Ctenocephalides_canis). [Ticks](http://en.wikipedia.org/wiki/Tick) are an external parasite of the dog and can spread diseases such as [Lyme disease](http://en.wikipedia.org/wiki/Lyme_disease), [Rocky Mountain spotted fever](http://en.wikipedia.org/wiki/Rocky_Mountain_spotted_fever), [babesiosis](http://en.wikipedia.org/wiki/Babesiosis), and [ehrlichiosis](http://en.wikipedia.org/wiki/Ehrlichiosis). They can also cause a neurological disorder known as [tick paralysis](http://en.wikipedia.org/wiki/Tick_paralysis)
* [Heartworm](http://en.wikipedia.org/wiki/Heartworm) disease in dogs is spread by [mosquitoes](http://en.wikipedia.org/wiki/Mosquito) and is spread by the parasite [Dirofilaria immitis](http://en.wikipedia.org/wiki/Dirofilaria_immitis). Signs include cough, difficulty breathing, and death [mites](http://en.wikipedia.org/wiki/Mite).
* Ear mites in dogs are microscopic members of the species [Otodectes cynotis](http://en.wikipedia.org/wiki/Otodectes_cynotis). Symptoms include itching, inflammation, and black debris in the ear.
* Cheyletiellosis is a mild pruritic skin disease in dogs caused by [Cheyletiella yasguri](http://en.wikipedia.org/wiki/Cheyletiella_yasguri). Humans can be transiently infected[Chiggers](http://en.wikipedia.org/wiki/Harvest_mite)\*, also known as harvest mites, can cause itching, redness and crusting in dogs.
* [Mange](http://en.wikipedia.org/wiki/Mange) in dogs includes demodectic mange and sarcoptic mange. Demodectic mange is caused by [Demodex canis](http://en.wikipedia.org/wiki/Demodex_canis). Signs include hair loss, redness, and scaling, and is not contagious to humans!. Sarcoptic mange is caused by [Sarcoptes scabiei canis](http://en.wikipedia.org/wiki/Sarcoptes_scabiei). Signs include intense itching and scaling, and is contagious to humans.
* [Trichinellosis](http://en.wikipedia.org/wiki/Trichinellosis) caused by [Trichinella spiralis](http://en.wikipedia.org/wiki/Trichinella_spiralis),
* [Demodex](http://en.wikipedia.org/wiki/Demodex) also known as demodicosis live in small numbers in the sebaceous glands and hair follicles. These mites can cause inflammation and hair loss, they can also lead to secondary bacterial infections such as fever, lethargy, and in larged lymph nodes.(http://www.dog/diseases).

 As stated by Tarafder, M. and Samad, M. A. 2010. The prevalent diseases and/or conditions from low to high rates as found in Central Veterinary Hospital, Dhaka included rabies (0.35%), alopecia (0.52%), lice infestation (0.90%), lameness (0.95%), ottorrhea (1.06%), canine distemper (1.61%), parasitic infestation 1.93%, dermatomycosis (3.30%), mange (3.76%), dermatitis (4.99%), diarrhea (5.21%), and tick infestation (11.88%). Age-wise overall prevalence of clinical diseases revealed significantly (p <0.05) highest in age group above 36 months (48.12%) compared to that in 7 to 36 months (34.33%) and up to 6 months (17.55%) age groups of pet dogs. The significantly (p <0.05) highest prevalence of diseases and/or clinical conditions was recorded in local (33.35%) and German shepherd (22.53%) breeds of pet dogs. Results of this study indicate that the risk of zoonotic infection by canine intestinal parasite may be high in Bangladesh. The prevalence of canine parvoviral diseases was 21.33% and canine distemper was 11.1%. These result are also agreement with (Udupa and sastry,1996),who found28.6% of pet dogs were positive for parvoviral diseases (Saghir and Masood, 1999).

CHAPTER-III

**MATERIALS AND METHODS**

**Study area:**

The study was conducted in SAQTVH (Sahedul Alam Quaderi Teaching Veterinary Hospital), Chittagong Veterinary and Animal Sciences University, Khulshi, Chittagong.

**Duration of the study:**

The duration of the study was one year from January to December, 2012.

**Sample size:**

Total 120 dogs were observed in case sheet of one year in the clinics. The samples were analyzed on the basis of month, age, sex, breed of the dog.

**Method of collection:**

All the dogs brought for treatment in SAQTVH, were first registered in the patient registered book. The month, age, sex, breed diseases & drugs used for treatment were recorded. The pet dogs used for this study were those presented at the SAQTVH from January to December 2012. All the patients were first registered in the patient register book including date, age, sex, breed and complaint of the owners. Detailed clinical examination of each of the patient was carried out as described by Tarafder and Samad, 2010. Which included a complete medical history like family medical history, 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 were conducted. Mouth gag and local anesthesia were also used for clinical examination of the patients. Extension and flexion, needle puncture and otoscopy were also performed when required.

Samples considered significant for diagnostic purposes were collected. Faecal samples and skin Scrapings were examined at the clinics. Blood and urine samples were collected for routine and specific examinations were examined. Where needed, owners were asked to perform X-ray examination from human radiologist to diagnose bone and chest diseases. Dead pet dogs were subjected to necropsy examination to record the gross lesions and collect samples for laboratory diagnosis

**Statistical analysis**:

Results are reported as percentage and the differences between the case and control groups for age, sex and breed were compared with X2 analysis. All analyses were performed with standard software (SPSS, version 13.0, SPSS Inc, Chicago, III); values of p < 0.05 were considered significant.

CHAPTER-IV

**RESULTS AND DISCUSSION**

The prevalence of diseases of dog in Chittagong metropolitan area were found as mange 17.64%, fracture 14.28%, rabies 10.92%, canine distemper 18.48%, infectious canine hepatitis 5.04%, aural haematoma 11.76%, myiasis 8.40%, parvoviral infection 7.56% and parasitic infestation 5.88% (Table-1). The prevalence of canine distemper was found the highest (18.48%) among the diseases available in dog in the year 2012 as shown in the table-1. The prevalence of infectious canine hepatitis was found the lowest (5.04%) among the available diseases of dog in the year 2012 as shown in the table-1.

**Table-1: Prevalence of diseases of dog in Chittagong Metropolitan Area:**

|  |  |  |  |
| --- | --- | --- | --- |
| Diseases | Prevalence (%) | Standard Error | 95% Conf. interval |
|  |  |  | Lower limit | Upper limit |
| Mange | 17.64 | 3.50 | 10.69 | 24.59 |
| Fracture | 14.28 | 3.22 | 7.90 | 20.66 |
| Rabies | 10.92 | 2.87 | 5.23 | 16.61 |
| Canine Distemper | 18.48 | 3.57 | 11.41 | 25.56 |
| Infectious Canine Hepatitis | 5.04 | 2.01 | 10.53 | 9.03 |
| Aural Haematoma | 11.76 | 2.96 | 5.89 | 17.63 |
| Myiasis | 8.40 | 2.55 | 3.34 | 13.46 |
| Parvoviral Infection | 7.56 | 2.43 | 2.74 | 12.38 |
| Parasitic Infestation | 5.88 | 2.16 | 1.59 | 10.17 |

N=120

The prevalence of viral diseases, parasitic diseases and surgical cases in local breed were 49.45%, 37.365 and 13.19% respectively whereas in recognized breed were found as 32.14%, 42.86%, and 25.00% respectively as shown in Table-2. The prevalence of viral diseases, parasitic diseases and surgical cases in male were 38.46%, 42.31% and 19.23% respectively whereas in female the prevalence were 58.54%, 31.71% and 9.76% respectively (Table-2). Similarly, in case of age The prevalence of viral diseases, parasitic diseases and surgical cases in young were 34.55%, 47.27% and 18.18% respectively whereas in adult were found 54.69%, 31.25% and 14.06% respectively as shown in Table-2. The prevalence of diseases in local breed and recognized breed were not significantly (p>0.05) differ from each other. Similarly the prevalence of diseases in male, female, young and adult were not significantly (p>0.05) differ from each other.

**Table-2: Prevalence of diseases of dog in different age, breed and sex:**

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Category | Diagnosis | P-value |
| Viral Diseases (%) | Parasitic Diseases (%) | Surgical Cases (%) |
| Breed | Local | 49.45 | 37.36 | 13.19 | 0.178 |
| Reccognized | 32.14 | 42.86 | 25.00 |
| Sex | Male | 38.46 | 42.31 | 19.23 | 0.096 |
| Female | 58.54 | 31.71 | 9.76 |
| Age | Young | 34.55 | 47.27 | 18.18 | 0.085 |
| Adult | 54.69 | 31.25 | 14.06 |

N=120

The curative treatment and preventive treatment were done in local breed 67.03% and 32.97% respectively whereas in recognized breed were found 60.71% and 39.29% respectively. The curative treatment and preventive treatment were done in male 60.26% and 39.74% whereas in female were found 75.61% and 24.39%. The curative treatment and preventive treatment were done in young 54.55% and 45.45% whereas in adult were found 75.00% and 25.00%as shown in Table-3.

**Table-3: Different treatment strategies of diseases of dog:**

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Category | Treatment | P-value |
| Curative (%) |  Preventive (%) |
| Breed | Local | 67.03 | 32.97 |  | 0.538 |
| Reccognized | 60.71 | 39.29 |  |
| Sex | Male | 60.26 | 39.74 |  | 0.094 |
| Female | 75.61 | 24.39 |  |
| Age | Young | 54.55 | 45.45 |  | 0.019 |
| Adult | 75.00 | 25.00 |  |

 N=120

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CHAPTER-V

**CONCLUSION**

The conducted study suggests that prevalence of viral diseases were higher in all categories. As there is no specific and available practices of using antiviral drugs.

Also there is no regular vaccination as per schedule. So regular vaccination may be recommended for all stray dogs and pet dogs in Chittagong metropolitan area. It could be stated that rabies is a very much fatal as zoonotic diseases. Parasitic infestation is also important for pet dogs. Regular anthelmentic drugs administration should be performed. Surgical cases should be handled carefully. So all pet owners, veterinarians and associated people should be suggested to be vaccinated regularly and should be improved their managemental practices to prevent and protect various types of clinical diseases. For comprehensive evaluation further study on prevalence and management of clinical diseases should be carried out.

CHAPTER-VI

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