**CHAPTER V**

**DISCUSSION**

The different clinical examination techniques and laboratory methods were used to determine the prevalence of diseases and disorders in cattle and goats during this two months period of internship program at Feni Sadar Veterinary Hospital, a total of 131 cattle and 121 goats were examined clinically and the samples considered significant for the diagnostic purposes were utilized for laboratory investigation. From the 131 cattle and 121 goats, examined, 26 diseases and disorders were recorded in cattle and 22 in goats during this two months of study period.

Out of 252 animals, most of the animals were affected with parasitic diseases. **Gastro-intestinal nematodes** in cattle 4(5.63%) and in goats 10(8.26%). It is a very common disease to all class of ruminants. About 10.98% diarrheic cattle had one or more groups of nematode infection (Amin and Samad, 1987). Raza *et al.,* 2007 and Islam and Taimur, 2008 observed higher rates of nematode infection in female hosts than in males. Prevalence of infestation was higher in females (82.7%) than in males (53.4%; Singh *et al.,* 2008). Their results were in agreement with the finding of the present study which showed 18(25%) in female and 13(18.31%) in male. In contrast, Ibrahim *et al.,* 2008 reported higher prevalence of parasitic infestation in male than female hosts. Higher prevalence of parasites in females compared with males might be due to lower resistance of female during pregnancy.

**Fascioliasis** was recorded in cattle 28(21.37%) during 8 weeks of study period at upazilla veterinary hospital. The clinical occurrence of fascioloasis in association with diarrhea. In ruminants have been reported from Mymensingh (Samad *et al*., 1979). Amin and samad, 1988. Islam and Samad, 1989 at the 21.00% sub clinical prevalence of fascioliasis in cattle reported by Howlader *et* *al*., 1990 which is higher than the clinical incidence of 3.4% recorded in cattle in this study. The occurrence of higher rate of a clinical infection of fascioliasis during summer or (May to July) and autumn (August to October) months on both cattle and goats are in conformity with Carlees report of Quadir, 1981 who reported the peak infection period of *fasciola* infection during July to September. Rahman *et al*., 1972 reported the clinical incidence of 8.35 % fascioliasis, in cattle in Mymensingh district and Garrels recorded fascioliasis 22.4%.

The rate of **anestrus** in cattle was 3(2.29%). The results were in conformity with the earlier observation of Rahman *et al*., 1999 who reported 0.83% prevalence of anestrus cattle. Samad, 2008 reported that 46% to 68% prevalence of paramphistomiasis of cattle in Bangladesh.

The author found 2(3.33%) **repeat breeding** case in female cattle during the study period. The findings support the observation of Rahman *et al.,* 1999 who reported 0.64% prevalence of repeat breeder cattle. Das *et al.,* 1990; Rodriguez and Hernandez, 1992 found significant variations in pregnancy rate when cows were inseminated at different times after the first sign of heat. The pregnancy rate of cows markedly reduced when a higher ambient temperature prevailed for two days before insemination to 4-6 days after insemination (Gwazdauskas *et al.,* 1975). High erenvironmental temperature and relative humidity and poor management affected fertility of cattle (Zakari *et al.,* 1981).

**Mastitis** was recorded in cows 6(4.58%) during this 8 weeks investigation period. The clinical occurrences of mastitis in cow have been reported from Bangladesh (Rahman and samad, 1984) but a systemic study on this disease has not yet been in Bangladesh. Epidemiological studies on mastitis revealed that mastitogenic agents are widespread on different body sites of cows, milks hands, milking cows and in the milk samples. Moreover, teat apices are found to be the most common site from when these organisms have been isolated (Malhotca and kapur, 1982).

**Milk fever** was only recorded in 1(1.7%) cows but in other animals during study. The clinical occurrence of milk fever cases in cows have been reported from Bangladesh (Ali and Ahamed, 1968) but detail study on this disease has not yet been made from Bangladesh.

**Black Quarter** was recorded in 2(1.53%) in middle aged calves, which was relevant to the previous study saying highly prevalence in young calves aging 6 months to 18 months (Blood *et al.*, 1989)

**Naval ill** was only recorded in calves 2(1.53%) during 8 weeks investigation period. It is very much common in calves rather than other animals and it is occur due to the infection of the umbilicus of newborn, but this disease has not been reported in literature from Bangladesh. However, it is common occur within 2-5 days of calves after birth and characterized by the painful and umbilicus and draining purulent materials as described by Shearer, 1986.

**Foot and mouth disease** is an acute febrile diseases highly contagious disease of all cloven footed animals. It was recorded in cattle 3(2.29%) but not in goats during 8 weeks of study period at Feni Sadar Upazilla. Rahman *et al.*, 1972 reported incidence of Foot and Mouth disease (4.11%), under hospital conditions.

**PPR** was recorded only in goat 22(18.18%) during study period. It is highly acute contagious disease of small ruminants. Muddy floor and poor drainage system are the most vulnerable risk factor to occur the disease. Rainy season is most susceptible to occur the disease as accompanied with dry season (Islam *et al*., 2001). In PPR decrease percentage of lymphocyte because the virus has affinity to the lymphoid tissue and destroy lymphocytes. Choudhury, 1995 reported that the prevalence rate of PPR in Black Bengal goats was 67.28%. Rahman *et al.*, 1972 reported the prevalence of gastrointestinal disorders (12.66%). The occurrence of corneal opacity has frequently encountered in the in Bangladesh but there is a paucity of such published report in the inland literature.

**Urolithiasis** was only recorded in 4 (3.31%) goats but not in other cattle during study period. The clinical occurrence of urinary obstruction due to Urolithiasis in castrated goats (Blood *et. al*. 1989) have been reported from Mymensingh. The high prevalence rate of Urolithiasis in fatty goats in the urban areas in Dhaka might be due to stall feeding with excessive wheat bran which is rich in phosphate (Blood *et at*., 1989). Vitamin A deficiency and concentrate diet predispose to urolithiasis (Singh *et al.,* 1980; Ahmed *et al.,* 1990).

**Respiratory disorder** case reported in goat was 10(8.26%) which was more or less similar to the prevalence rate in goats (5.80%) from India (Banerjee *et al*., 1985).

**Tetanus** was recorded in goat 1 (0.83%) in this study during my 8 weeks period. However, this disease occurs in all farm animals all over the world mainly as individual sporadic cases although outbreaks are occasionally reported in sheep (Rao *et al.*, 1978). *Clostridium* *tetani* spores require anaerobic condition at the wound site of germination. Local tissue necrosis 0. may help for the establishment of vegetative infection (Smith and Maciver, 1979). Toxigenic strains of (*Clostridium tetani*) causative agent of tetanus have been isolated from the soil samples collected from different districts of west Bengal (Das *et al.,* 1976).

Mia and Hossain, 1967 reported that hump sore to the common skin diseases, followed by démodé tic mange in cattle and papillomatosis in adult cattle (7-8%) of Bangladesh.

**Foot rot** was recorded in 3(4.23%) in cattle, 4(5.94%) in goats during my study period. It causes the lameness of the farm animal. Saikia *et al*., 1992 reposted 13. 96% incidence rate of foot disease in bovine in Assar and Das *et al*., 1992 reported 24.40% foot diseases in bovine from west Bengal. It is occurring due to booth infectious and non infectious sources.

**Abscess** was recorded only in 3(3.7%) cattle during my study period. There seems to be no published inland reports on the incidence of abscess in animals, though it is commonly encountered in veterinary practices in Bangladesh. However, both subcutaneous and internal abscesses hare been reported in animals elsewhere (Ramakrishna *et al*., 1982 Singh *et al*., 1988).

Samad, 2008 reported **coccidiosis** found up to 3 months of age of calves were 37.72%. Rahman *et al*., 1972 reported the clinical incidence of 11.74% coccidiosis in cattle in Mymensingh district which was not similar to the present study 2(1.53%). Garrels, 1975 made an investigation of parasitic diseases on 500 cows in 6 villages of Dhaka and tangail districts who recorded coccidiosis (12.20%). Haque *et al.,* 1988 recorded 0.04 % general clinical incidence of Black quarter and 50.74% case fatality rate among cattle population at Pabna district. Maximum susceptibility to this infection was recorded up to 2 years of age and warmer months of the year.

**Papillomatosis** was recorded in 4(3.05%) cattle which agreed with Mia and Haque, 1967 who reported certain skin diseases of cattle and they found the incidence of papillomatosis 0.29% among hospital cases. Prasad *et al.,* 1980 reported papillomatosis is a chronic proliferative disease caused by a DNA virus belonging to the family Papovaviridae. The incidence of papillomatosis is required to be much higher imported and cross breed cattle than in the indigenous cows. Mia and Haque, 1967 who reported certain skin diseases of cattle and they found the incidence of humpsore to be 29%, among hospital cases. Rahman *et al*., 1972 reported the clinical incidence 1.45 % humpsore in cattle in Mymensingh district.

Prasad *et al.,* 1980 who reported in overall 2.25% incidence rate of **conjunctivitis** in animals which was similar to present study record in goats 3(2.48%).

During the study period goats 2(1.65%) were affected with **arthritis**. Recorded prevalence of **urolithiasis** in goat was 4(3.31%). Hossain *et al*., 1986 analysed the 13694 case records of veterinary clinic of Bangladesh Agricultural University from, 1980 to 1984, of which 125(5.3%) urolithiasis which was close to the study. Melntosh, 1978 recorded urolithiasis as a disease of multifactorial origin. The dietary factors play significant role in their occurance. Rahman *et al*., 1975 reported 8.57% urolithiasis in goats. Rahman *et al*., 1972 reported 9.0% prevalence of anorexia whereas it was 7(5.79%) in the studied area.