Diseases and Disorders in Animals Reported in Upazila Veterinary Hospital in Bandar Upazila of Narayangonj District of Bangladesh

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Abstract

The aim of this study is to find the occurrence of disease and disorder in animals reported in Upazilla Veterinary Hospital (UVH) in Bandar upazila of Narayangonj district of Bangladesh during the COVID 19 pandemic outbreak occurred. A total of 1169 animal's data were collected from UVH during the period from January to December 2020, when the COVID 19 pandemic occurs in Bangladesh. In the study we found that the percentage of cattle, goat, sheep, dog and duck were 42.7, 56.5, 0.6, 0.1 and o.1% respectively. the month of January, February and December were found higher number of animals than that of others month. In April, UVH was closed due to lock down of covid-19 and farmer could not bring their diseased animals to the hospital for treatment. Non-specific diarrhoea in cattle (24.2%) and in goat (22.3%) was higher than the others disease and disorders. It may conclude that the countrywide lockdown affect the veterinary services for farmers.

Keywords: *Disease; Disorder; COVID 19; Pandemic; Narayangonj*

Introduction

Bangladesh is a middle income generating country. Its economy is prosperous hastily. In the last decade, substantial development has been noticed in all sphere of life. However, incidence of COVID-19 Pandemic has influenced every sector of Bangladesh badly. Livestock is important part of rustic economy in Bangladesh. Majority of the people in our country are dependent on agricultural activities. It is an important component that practiced in our country for centuries. Diverse types of disease and disorders are familiar in rural areas. Due to corona pandemic most of livestock can't treat well. That's why a huge number of farmers face a financial loss. We are analyzing the whole situation during the covid-19 in year 2020. Upazila Veterinary hospital (UVH) is a reliable source of information about animal diseases with their treatment. People bring their sick animals to the UVH. The climatic condition is favorable for the incidence of economically significant diseases in animals [1]. People of the surrounding areas of upazila bring their sick animals every day in the UVH for treatment. It is important to know the disease occurrence pattern to resolve the problems in the local area via clinical records of the UVH. Besides its impact on public health COVID-19 has affected social and economic life [2]. Governmental measures, taken in attempts to control the pandemic which is included national lockdowns, travel restrictions, border closures and controls. These have resulted in some unavoidable negative consequences. In regard to the livestock sector, it is included: local and international movements of live animals and animal products, supplies of raw materials for feed and medicine, provision of other production inputs and equipments, access to labor and professional services. However, to our knowledge, there is no previous published data of disease occurrence in Bandar upazila of Narayangonj district of Bangladesh.

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Objective of the Study

The objective of this study was to find out the occurrences of disease and disorder reported in UVH in these upazila.

Materials and Methods

Study area and period

The study was conducted at Upazila Livestock Office and Veterinary Hospital in Bandor upazila of Narayangonj district of Bangladesh during the period from January to December 2020.

Data collection

A total of 1169 animal's data were collected from the register book of the hospital. All diseased animals were brought for treatment to UVH. Disease was diagnosed on the basis owner's complain, clinical history, clinical findings, general clinical examination and some cases laboratory test.

Statistical analysis

The data were classified in to different categories and subjected to calculation of percentage by using excel spread sheet.

Results and Discussion

Animal species wise observation

A total of 1169 animal's data were recorded during the study period. The animal species wise observation in UVH is shown in table 1. In the study we found that the percentage of cattle, goat, sheep, dog and duck were 42.7, 56.5, 0.6, 0.1, and o.1% respectively.

Animals species	n (%)
Cattle	499 (42.7)
Goat	661 (56.5)
Sheep	7 (0.6)
Dog	1 (0.1)
Duck	1 (0.1)
Total	1169

Table 1: *Animal species wise observation.*

Month wise observation

The month wise observation of animals has been shown in table 2 in which the month of January, February and December were found higher number of animals than that of others month. In April, UVH was closed due to lock down of covid-19 and farmer could not bring their diseased animals to the hospital for treatment. Gradually Hospital was opened and patients were being started to come hospital but in the meantime farmers became huge lost due to covid-19.

Months	Animal Species n (%)					Total
	Cattle	Goat	Sheep	Dog	Duck	
January	41 (45.1)	48 (52.7)	2 (2.19)	0 (0.0)	0 (0.0)	91
February	45 (53.6)	39 (46.4)	0 (0.0)	0 (0.0)	0 (0.0)	84
March	25 (31.6)	53 (67.1)	1 (1.3)	0 (0.0)	0 (0.0)	79
April	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0
May	9 (25.0)	26 (72.2)	1 (2.8)	0 (0.0)	0 (0.0)	36

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June	33 (31.7)	70 (6.7)	1 (0.9)	0 (0.0)	0 (0.0)	104
July	65 (47.1)	73 (52.9)	0 (0.0)	0 (0.0)	0 (0.0)	138
August	62 (50.0)	61 (49.2)	0 (0.0)	1 (100.0)	0 (0.0)	124
September	73 (48.3)	77 (51.0)	1 (0.7)	0 (0.0)	0 (0.0)	151
October	61 (41.5)	85 (57.8)	1 (0.7)	0 (0.0)	0 (0.0)	147
November	49 (40.8)	71 (59.2)	0 (0.0)	0 (0.0)	0 (0.0)	120
December	36 (37.9)	58 (61.1)	0 (0.0)	0 (0.0)	1 (100.0)	95
Total	499	661	7	1	1	1169

Table 2: Month wise observation.

Disease and disorder wise observation in cattle, goat and sheep

In case of cattle and goat, the number of disease and disorder were found is shown in table 3. In the study, we found that the endoparasitism in cattle (40.8%) and goat (26) were higher than that of others due to lake of deworming. On the contrary Non-specific diarrhoea in cattle (24.2%) and in goat (22.3%) was higher than the others due to improper management of animals.

Disease and disorder	Cattle n (%)	Goat n (%)	Sheep n (%)
Abscess	0 (0.0)	2 (0.3)	0 (0.0)
Allergic dermatitis	3 (0.6)	1 (0.1)	0 (0.0)
Anorexia	73 (14.6)	133 (20.1)	0 (0.0)
Arthritis	0 (0.0)	6 (0.9)	2 (28.5)
Weakness	8 (1.6)	6 (0.9)	0 (0.0)
Non specific diarrhoea	121 (24.2)	148 (22.3)	2 (28.5)
Dog bite	0 (0.0)	2 (0.3)	0 (0.0)
Eye problem	1 (0.2)	4 (0.6)	0 (0.0)
Non specific fever	24 (4.8)	13 (1.9)	1 (14.2)
Foot and mouth disease	7 (1.4)	3 (0.4)	0 (0.0)
LSD	4 (0.8)	0 (0.0)	0 (0.0)
Mastitis	1 (0.2)	7 (1.05)	0 (0.0)
Castration	0 (0.0)	1 (0.1)	0 (0.0)
Stomatitis	0 (0.0)	4 (0.6)	0 (0.0)
Tympany	15 (3.0)	27 (4.0)	0 (0.0)
Urolithiasis	0 (0.0)	1 (0.1)	0 (0.0)
Rabies	0 (0.0)	4 (0.6)	0 (0.0)
Pneumonia	3 (7.4)	76 (11.4)	0 (0.0)
Gid disease	0 (0.0)	1 (0.1)	0 (0.0)
PPR	0 (0.0)	46 (6.9)	0 (0.0)
Myiasis	0 (0.0)	3 (0.4)	0 (0.0)
Tetanus	0 (0.0)	1 (0.1)	0 (0.0)
Endoparasitism	204 (40.8)	172 (26.0)	2 (28.5)
Wound	1 (0.2)	0 (0.0)	0 (0.0)
Total	499	661	7

Table 3: Disease and disorder wise observation in cattle, goat and sheep.

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Disease wise observation in dog and duck

In case of dog and duck, the occurrences of disease and disorder were found during the period is shown in table 4. We found that the number of dog and duck were brought in UVH is very poor.

Disease and disorder	Dog n (%)	Duck n (%)
Non specific Fever	1 (100)	0 (0.0)
Weakness	0 (0.0)	1 (100)
Total	1	1

***Table 4:** Disease wise observation in dog and duck.*

Non specific diarrhoea was recorded in 121 (24.2%) cattle and 148 (22.3%) goats. It could be compared well with the 6.94% of non-specific diarrhoea in dairy cows, 8.99% in calves and 12.23% in goats [3,4] and 7.6% in cattle and 12.1% in goats [5]. Samad [6] found 25.97% and 9.91% of diarrhoeal diseases in cattle and goats, respectively. Investigation of the clinical cases revealed that 4.8% cattle and 1.9% goats were affected with fever of anonymous etiology. The finding of fever supports the earlier report of Hoque and Samad [4] who reported 10.37% fever cases in cattle and goats. The fever in cattle and goats were recorded in all age groups and seasons of the year. Analysis of the clinical cases of ruminants revealed that 14.6% cattle and 20.1% goats were affected with Anorexia. In the study, anorexia was reported in 14.6% cattle and 20.1% in goats. Prasad., *et al*. [7] recorded the anorexia is a one of the commonest problem amongst the nonspecific clinical entities in routine ruminant practice. Among the cases, the most recurrently encountered disease was parasitic diseases both in cattle (40.8%) and goats (26%). Parvez., *et al*. [8] reported more parasitic cases in cattle (51.54%) and goats (54%). High prevalence of parasitic disease because owners weren't more concerned with deworming of cattle and goats in studied area. Analysis of the clinical cases revealed that prevalence of FMD is slightly lower in cattle (1.4%) and in goat (0.4%). Vaccination is a way to reduce the infection in this region compare to the other parts of Bangladesh. Movement of animals and trade play a key role for spreading of FMD. The effect of FMD is to reduce fertility through abortion and decreased conception rates. Regular vaccination of all cattle and goat in selected areas and proper surveillance system and antibody monitoring in vaccinated populations would reduce the disease progression. Mastitis refers to an inflammation of the mammary glands due to numerous infectious agents. Mastitis was recorded in cattle 0.2% goats 1.05% during this one-year period. Hoque and Samad [4] reported that 10.14% mastitis in cattle and goats found in the central Veterinary Hospital, Dhaka out of 1243 clinical cases. Tympany was recorded in cattle 15(3%) and goat 27 (4%). Feeding behavior is also responsible for indigestion [9]. Pneumonia was recorded in cattle 7.4% and 11.4% goats. The causal agents of pneumonia could not be identified in this general clinical investigation. Rahman., *et al*. [5] determined the mortality rate due to pneumonia in goats is 18.45%. Ali., *et al*. [10] found an overall 2.77% respiratory disease in goats on pathological investigation. In this study, PPR was recorded in 6.9% (46) goats.

Conclusion

It is concluded that the occurrences of disease and disorder during the pandemic were high. However, the countrywide lockdown affect the veterinary services for farmers. Most of the animals suffer from managemental diseases which might due to ignorance of farmer for vaccination and deworming as well as lack of knowledge about animal feeding. The limitation of this study is the constricted study area, be deficient in previous year's data for assessment. It was a baseline study which may assist the veterinarian to implement further strategy to control infectious diseases and disease condition in the particular area of Bangladesh.

Acknowledgment

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Conflict of Interests

The authors declare that they have no competing interests.

Authors' Contribution

Ashit Kumar Paul designed the experiment, supervised the study, analyzed the data and revised the final draft of manuscript. Mohammad Imran Hossain directly involved to do the experiment, collection of data and reviewed the literature.

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