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Research Article

Prevalence of Several Goat Diseases at Jiscovas of Mogra in West Bengal

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Abstract

Disease prevalence always gives us a complete scenario of a particular area. It is also very useful to keep a good treatment schedule in that particular place. The purpose of this study is to assess the illness status of the goat population in the chosen area and to objectively identify the prevalence of various goat diseases. Records of 524 clinical goat cases—228 males, 205 females, and 91 children—that were treated at JISCOVAS Clinical Complex over a three-month period from December 2025 to February 2026 were examined to determine the prevalence of common ailments. The recorded clinical cases were classified into ten major disease categories. Endoparasitic infestations constituted the most prevalent condition (41.03%), followed by nutritional diseases (31.10%). Other recorded conditions included surgical cases (7.63%), ectoparasitic infestations (7.44%), digestive disorders (6.30%), respiratory disorders (3.08%), infectious diseases (1.90%), metabolic disorders (0.57%), gynaecological diseases (0.57%), and miscellaneous conditions (0.38%). Whereas, the disease prevalence of Kid, Bucks and Does among the disease categories showed that Parasitic infection (52.75%) was the highest and Metabolic disorder was the lowest (0.00%) in Kids, and Parasitic infection (40.35%) was the highest and Gynaecological diseases was the lowest (0.00%) in Bucks and Parasitic infection (36.58%) was the highest and other diseases was the lowest (0.00%) in Does. On the other hand, considering each disease, FMD, Tetanus & Wounds ranked the highest (1.10%) in Kids; Wounds (2.19%) ranked the highest in Bucks and Wounds ranked the highest (1.95%) the top in case of Does. Although all diagnostic categories are clinically important, digestive disorders, parasitic infestations, and infectious diseases emerged as the major constraints affecting goat health and requiring greater attention at the JISCOVAS Clinical Complex.

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1. INTRODUCTION

Goat rearing is an important traditional livelihood among rural communities in Bengal, particularly for economically disadvantaged households with limited agricultural land or those residing near forested areas. Goat meat is widely consumed across different sections of society, while women often play a major role in goat husbandry. Among the goat breeds found in West Bengal, the Black Bengal goat is an indigenous breed that is widely distributed across the State and neighbouring regions, including Jharkhand, Bihar, Odisha, Assam, Tripura, and Bangladesh. The breed is mainly raised for meat production rather than milk. Its chevon is well known for its excellent taste, juiciness, tenderness, and desirable texture. In addition, the hide of the Black Bengal goat is highly valued for its superior quality and is commonly used to produce fine leather, particularly Glacé Kid.

According to the 20th Livestock Census (2019), West Bengal holds the second-highest goat population in India, accounting for approximately 16.28 million goats, or 10.93% of the country's total goat population. Goat rearing is practiced by around 3.94 million households across the state. Furthermore, West Bengal recorded a chevon production of approximately 429.86 metric tonnes during 2022–23.

Veterinary diseases are a major constraint to goat production in the Indian subcontinent. Commonly reported diseases include Peste des Petits Ruminants (PPR), Foot-and-Mouth Disease (FMD), mastitis, goat pox, and arthritis. These conditions adversely affect goat health and the economic well-being of farmers by reducing productivity, compromising the quality and marketability of meat and milk, and potentially limiting livestock trade.

Animal husbandry practices in Mogra, West Bengal, continue to encounter significant animal health challenges. These issues are largely associated with inadequate awareness among livestock owners, fragmented farming systems, and limited access to modern veterinary services, particularly in remote and rural areas.

Transboundary animal diseases such as Peste des Petits Ruminants (PPR) have been reported in recent years across several South Asian countries, including India, Nepal, Pakistan, and Bangladesh. Foot-and-mouth disease (FMD), another highly contagious viral disease, is endemic in many regions and has remained a significant threat to livestock health since its recognition in the late nineteenth century. Infection can result in severe physiological disturbances, weakness, reduced productivity, and considerable economic losses. In addition, other important goat diseases pose a serious threat to small-ruminant production throughout South Asia. Among these, goat pox is a notable contagious disease characterized by the development of distinctive nodular lesions on the skin.

2. OBJECTIVES

The present study aims to assess the current status of goat diseases at JISCOVAS, Mogra, West Bengal, with particular emphasis on determining the occurrence and prevalence of various diseases affecting goats in the study area. It also seeks

to evaluate the relationship between seasonal variations and the incidence of goat diseases. Furthermore, the study intends to identify any regional predominance of specific diseases and examine possible differences in disease occurrence between male and female goats.

The primary objective is to minimize the occurrence and spread of goat diseases in Mogra, thereby contributing to the protection of both animal and public health. This objective can be accomplished through an integrated disease-management strategy that emphasizes regular surveillance, timely vaccination, prompt disease detection and response, improved veterinary infrastructure, capacity building among professionals, and effective awareness programs for goat owners.

3. MATERIALS & METHODS

Study Design:

A total of 524 clinical cases of goats, comprising 228 bucks, 205 does, and 91 kids, presented and treated at the JISCOVAS Clinical Complex over a three-month period from December 2025 to February 2026 were retrospectively analysed to determine the prevalence of commonly occurring diseases. The cases were evaluated across seven major diagnostic groups in bucks, does, and kids. The age of each animal was estimated based on information provided by the owner and, where necessary, confirmed through dental examination. Disease diagnosis was established by considering the animal's age, sex, and breed, along with the clinical history and findings of physical examination. The cases recorded daily were subsequently classified into ten major disease categories. Endoparasitic infestations showed the highest prevalence, followed by nutritional diseases, surgical conditions, ectoparasitic infestations, digestive disorders, respiratory disorders, infectious diseases, metabolic disorders, gynaecological conditions, and other miscellaneous disorders.

The influence of age and sex on the occurrence of goat diseases was systematically evaluated. For analysis, the animals were classified into three groups: Kids, Bucks, and Does. Similarly, the occurrence of specific diseases, including FMD, tetanus, and wounds, was assessed separately across these three age-sex categories to determine their distribution and prevalence.

Clinical Examination:

The body condition, rectal temperature, faecal consistency, and notable clinical signs of each animal were assessed and recorded. A presumptive diagnosis was established based on the clinical findings. The skull was palpated to assess bone thickness, while the umbilical region of kids was examined for swelling, wounds, or evidence of a hernial ring. In bucks, the preputial mucosa and glans penis were inspected for purulent discharge and ulcerative lesions. The udders of does were examined by palpation for enlargement, redness, pain, or other abnormalities. The entire body surface was inspected for swellings, wounds, and abnormal solid growths. The oral cavity and feet were examined for vesicular lesions, wounds, and excessive salivation suggestive of infectious conditions. Does

with a history of failure to conceive following more than three inseminations were recorded as reproductive cases. Ruminal motility was assessed by palpation, and the major joints were examined for swelling, tenderness, or pain. Abnormal respiratory sounds were evaluated using a stethoscope. Infectious diseases were classified as foot-and-mouth disease (FMD), peste des petits ruminants (PPR), papillomatosis, arthritis, navel ill, ocular infection, dog bite, goat pox, tetanus, and mastitis. Digestive disorders included indigestion and diarrhoea, whereas surgical conditions comprised wounds, abscesses, prolapse, and fractures. Respiratory disorders were identified from the owner's history and clinical signs, including polypnoea, dyspnoea, coughing, and thoraco-abdominal breathing, along with a systematic examination of the respiratory tract following the approach described by Blood and Radostits (1989). Ectoparasitic infestation was assessed through clinical examination and skin scraping. Endoparasitic infection was suspected based on signs such as alopecia, emaciation, weakness, rough hair coat, and pallor of visible mucous membranes, and was further evaluated through feed sample examination. Metabolic disorders occurring shortly after parturition were also recorded. In surgical cases, wounds were identified through physical examination, while abscesses

were confirmed by needle puncture; suspected fractures were evaluated through clinical examination and palpation.

Analysis:

The collected data were systematically analyzed using Microsoft Word, Microsoft Excel, SPSS statistical software, and analysis of variance (ANOVA) to determine the significance of the observed findings.

4. RESULTS AND DISCUSSIONS

Clinical records of 524 goats presented and treated at the JISCOVAS Clinical Complex were reviewed to determine the prevalence of commonly occurring diseases. The recorded cases were classified into ten major disease categories. Endoparasitic infestations accounted for the highest proportion of cases (41.03%), followed by nutritional diseases (31.10%), surgical conditions (7.63%), ectoparasitic infestations (7.44%), digestive disorders (6.30%), respiratory disorders (3.08%), and infectious diseases (1.90%). Metabolic disorders and gynaecological diseases each represented 0.57% of the cases, while other miscellaneous conditions accounted for the remaining 0.38%. (Table 1).

Table 1: Clinical case of Goat in JISCOVAS TVCC

Sl. No.	Clinical Cases	No. of Cases	Prevalence (%)	DMRT Rankings
1	Digestive disorder	33	6.30	(5)
2	Ectoparasitic infection	39	7.44	(4)
3	Infectious diseases	10	1.90	(7)
4	Metabolic disorder	03	0.57	(8)
5	Endo-Parasitic infection	215	41.03	(1)
6	Respiratory disorder	16	3.05	(6)
7	Surgical affection	40	7.63	(3)
8	Nutritional Diseases	163	31.10	(2)
9	Gynaecological diseases	03	0.57	(9)
10	Others (congenital)	02	0.38	(10)
Total		524	100.00	

Whereas, the disease prevalence of Kid, Bucks and Does among the disease categories showed that Parasitic infection (52.75%) was the highest and Metabolic disorder was the lowest (0.00%) in Kids, and Parasitic infection (40.35%) was

the highest and Gynecological diseases was the lowest (0.00%) in Bucks and Parasitic infection (36.58%) was the highest and other diseases was the lowest (0.00%) in Does.

Table 2: Pattern of Clinical Cases in Kids, Bucks, and Does at JISCOVAS TVCC

Sl. No.	Clinical cases	Number & Occurrence % (number)					
		No. of Kids	Prevalence	No. of Bucks	Prevalence	No. of Does	Prevalence
1.	Digestive disorder	10	10.99	15	6.58	08	3.90
2.	Ectoparasitic infection	10	10.99	17	7.46	12	5.85
3.	Infectious diseases	02	2.20	05	2.19	03	1.46
4.	Metabolic disorder	00	0.00	01	0.44	02	0.97
5.	Parasitic infection	48	52.75	92	40.35	75	36.58
6.	Respiratory disorder	02	2.20	02	0.88	12	5.85
7.	Surgical affection	09	9.90	16	7.02	15	7.32
8.	Nutritional disorders	10	10.99	78	34.21	75	36.38
9.	Gynaecological disorders	00	0.00	00	0.00	03	1.46
10.	Others (congenital)	00	0.00	02	0.88	00	0.00
	Total=	91		228		205	

On the other hand, considering each disease, FMD, Tetanus & Wounds ranked the highest (1.10%) in Kids, Wounds (2.19%)

ranked the highest in Bucks and the Wounds ranked (1.95%) the top in case of Does.

Table 3: Occurrences (%) of clinical cases of Goat in Kids, Bucks and Does in JISCOVAS TVCC

Sl. No.	Diseases and disorders	Number & Occurrence % (number)					
		No. of Kids (91)	Prevalence	No. of Bucks (228)	Prevalence	No. of Does (205)	Prevalence
01.	PPR	01	1.10	00	00	00	00
02.	FMD	00	00	01	0.44	01	0.49
03.	Goat pox	00	00	00	00	01	0.49
04.	Tetanus	01	1.10	00	00	00	00
05.	Dog bite	00	00	02	0.88	00	00
06.	Mastitis	00	00	00	00	01	0.49
07.	Eye infection	00	00	01	0.44	00	00
08.	Arthritis	00	00	01	0.44	00	00
09.	Wounds	01	1.10	05	2.19	04	1.95
10.	Others	00	00	00	00	00	00
Total=		91		228		205	

5. CONCLUSION

This study revealed that edoparasitic and nutritional disorders are more common in goat rather than others. These two cases are also the highest in goat kids, buck and does as well. In addition, digestive and ectoparasitic problems are also common close to the aforementioned disorders in rankings.

Regular deworming, appropriate nutritional management, and effective biosecurity practices are essential for improving the health and productivity of goats reared under rural farming conditions. The findings of this study may contribute to a better understanding of the occurrence, management, and control of common clinical conditions in goats and support the development of suitable preventive strategies for improving production. Such measures may also contribute to reducing the burden of goat diseases at a broader, national level. Further investigations are warranted to identify and characterize the specific etiological agents associated with the clinical conditions observed in this study.

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