Clinical Prevalence Report Of Large And Small Animals At Block- Sikrara Veterinary Hospital, Jaunpur, U.P.

Alka manisha [1] and Ashish Kumar Srivastava [2]
(1-Veterinary Officer, Block- Sikrara, Jaunpur, U. P.,
(2- 2- Scientist- Veterinary Science, KVK, Kaushambi, U. P.)

Abstract:

An investigation was undertaken to determine the general clinical prevalence of diseases and disorders in Large (Cattle), small (Goat, Sheep, Pig, Dog and Poultry), clinical and medicine, vaccination, A.I. and anoestrus cases at the Block- Sikrara, Jaunpur, Uttar Pradesh, during the period from April 2023 to March 2024. In subsequent year, the total no. of cases were recorded, in which clinical and medicinal 3624 cases, castration 4855, vaccination were 1.2 lakh (large and small), A.I. was 13554, sexed sorted semen A.I. was done 429 and Anoestrus 133 cases were recorded and analyzed. Diagnosis of each of the cases was made on general examination, physical examination, clinical examination, microscopic examination and using common laboratory techniques. The clinical cases were divided into three groups on the basis of treatment required viz. (1) Medicinal, (2) Gynaeco-obstetrical and (3) Surgical cases. Among the three types of groups, vaccination programme constituted highest (<1.2 lakh) were recorded for different vaccines in different spices (H.S.- 31.25%, F.M.D.- 36.54%, Brucellosis- 3.8%, Swine fever- 0.25%, PPR- 9.5%, LSD- 18.62% and Rabies- 0.19%). In medicinal cases (gastrointestinal nematodiasis, diarrhoea, fascioliasis, paramphistomiasis and fever) were recorded lower in ruminants than small non-ruminant and poultry (ruminant 6.3% and non-ruminant 93.72%). In comparison to gynaeco-obstetrical and anoestrus treatment were recorded 56.39% retained placenta (cattle 30% and goats 50%) and repeat breeding (cattle 70% and goats 50%). Among the medicinal cases, gastrointestinal nematodiasis, diarrhoea, fascioliasis, paramphistomiasis, urolithiasis, abscess, navel ill, gid disease and fever (avg. large animals-16.04% and Small animals 11.22%) were recorded major disease problems in cattle and goats. Under better progenies and breed improvement activity total no.13554 of A.I. were done in this year, in which 27.77% desi and 72.23% cross breeds. Sexed sorted semen programme, the conception rate were 36.06% and 35.27% in cow and buffalo respectively with percentage of female calves were 46.78% and 21.39% respectively. It may conclude that a number of diseases have been occurring in the Sikrara, Jaunpur, U.P. and this report may help to develop control strategies against major diseases reported in this study.

Key words: Clinical prevalence, diseases and disorders, A.I., cattle, goat

Introduction:

India is endowed with the largest livestock population in the world. Livestock rearing is one of the critical economic activities in selected region, providing a source of supplementary income along with agriculture; it has been a source of livelihood for more than 70% (marginal, small farmers and landless labourers) own over and above 80% of livestock species. The rural population of district and rural household generate their total income from the livestock sector, rearing of livestock such as cattle, buffaloes, goat, pig, and poultry etc. The animal protein supplements viz milk, eggs and meat are available for the family members. Major issues of livestock rearing in middle plain zone are the scarcity of green feed fodder, low production performance, repeat breeding and poor conception rate of the artificial insemination, draught, housing condition, animal movement, management system are the main factors which influence the disease occurrence/conditions in animal population of district. The objective of the present study was to record the prevalence and document the types of disorders in domestic animals in studied area. Livestock, most of the cattle are desi or indegenous breed which survives on low level of nutrition, unconventional feed and fodder resources. Livestock is an important component of the mixed farming system practiced in our state U.P. Most of these animals are reared under smallholder traditional management system in rural areas. The management practices of animals and geo-climatic condition of India are favourable for the occurrence of various diseases. Veterinary hospital is an ideal and reliable source of information about animal diseases and their solution. People from the neighbouring areas bring their sick animals to the Veterinary hospital every day. Analysis of the case record gives a comprehensive idea about the disease problems at local areas (Rahman et al., 1972; Hossain et al., 1986; Das and Hashim, 1996; Samad, 2001; Samad et al., 2002), Livestock Extension officer centers and Goushala are available but similar report on ruminants are very limited in Sikrara of District Jaunpur. In the last few decades, as the major infectious diseases of cattle in Sikrara are brought under control by vaccination and farmer's awareness, emphasis has increasingly shifted to economically important diseases to the dairy producers. However, more information is required to describe the pattern of occurrence of clinical diseases for the provision of appropriate veterinary care and effective disease control programme and animal production. The objectives of the present study was to record the prevalence and document the types of disorders in domestic animals presented to the V.H., block- Sikrara, Jaunpur, U.P.

Materials and Methods:

This clinical study was undertaken at the Sikrara, Veterinary Hospital, Jaunpur, to determine the general clinical prevalence of clinical diseases and disorders in domesticated animals, during the one year study period from April 2023-March 2024. The retrospective epidemiologic study of diseases was done using 1 year data, was collected from outpatient case record of hospital. The data were analyzed retrospectively and interpreted according to study format.

General examination: Physical condition, behaviour, posture, gait, superficial skin wound, prolapse of the uterus and vagina, salivation, nasal discharge, distension of the abdomen, locomotive disturbance etc were observed by visual examination of the patient.

Physical examination: Examination of different parts and system of the body of each of the sick animals were examined by using procedure of palpation, percussion, auscultation, needle puncture and walking of the animals.

Clinical examination: The temperature, pulse, and respiratory rate from each of these sick animals were recorded. Clinical examinations of all clinically sick ruminants of different ages were conducted on the basis of diseases history, owner complaint, symptoms, to diagnose the following diseases and disorders. History of each case (present and past) was carefully taken which gave a guideline for examination of the animals. According the merit of the individual case, general clinical examination were conducted on the basis of disease history and owners complaint, symptoms and techniques such as microscopic examination, common laboratory techniques used by Rosenberger (1979) and Samad et al. (1988). These recorded clinical cases were primarily categorized into three major groups on the basis of treatment required. These groups were: (1) Medicinal cases, (2) Gynaeco-obstetrical cases and (3) Surgical cases. These three groups were considered sufficiently distinct so as to make clinical diagnosis accurate. Data were organized in the state excel data spreadsheet and percentages of disease conditions prevalent in different diseases were calculated.

Results and Discussion:

The data of diseases/ disorders in various domestic animals according to age, sex and as per treatment group were recorded from outpatient department register. Among all cases, majority of cases were of cattle fallowed by goats and dog cases. The number of cases presented to V.H. represents the population dynamics of the livestock in the area. The highest % of case was recorded during the autumn season while lowest % of case was recorded winters.

In the recorded cases were, in which clinical and medicinal 3624 cases, castration 4855, vaccination were 1.2 lakh (large and small), A.I. was 13554, sexed sorted semen A.I. was done 429 and Anoestrus 133 cases were recorded and analyzed by Rahman et al. (2012). Diagnosis of each of the cases was made on general examination, physical examination, clinical examination, microscopic examination and using common laboratory techniques. The clinical cases were divided into three groups on the basis of treatment required viz. (1) Medicinal, (2) Gynaeco-obstetrical and (3) Surgical cases.

Among the three types of groups, vaccination programme done and constituted highest (<1.2 lakh) were recorded for different vaccines in different spices (H.S.- 31.25%, F.M.D.- 36.54%, Brucellosis- 3.8%, Swine fever- 0.25%, PPR- 9.5%, LSD- 18.62% and Rabies- 0.19%). This finding support the finding by Samad (2001) and Rahman et al. (2012) reported 1.79% and 1.3% cases of FMD in cattle and only one (0.08%) case in goat. Comparatively higher prevalence rates of FMD in cattle have been reported by Hoque and Samad (1996) and Rahman et al. (1999) who reported 5.71%, 10.05%, 8.58% and 5.78%, respectively. PPR vaccination in this study recorded 5.3% cases in goats, which was supported by Rahman et al. (2012) who reported 5.2% PPR cases in goat.

Among the medicinal cases, gastrointestinal nematodiasis, diarrhoea, fascioliasis, paramphistomiasis, urolithiasis, abscess, navel ill, gid disease and fever (avg. large animals-16.04% and Small animals 11.22%) were recorded major disease problems in cattle and goats. Howlader et al. (1990) reported 21% sub clinical prevalence of Fascioliasis in cattle. However, this result differ from the earlier

reports of Amin and Samad (1987) who reported 10.98% diarrhoea of cattle due to one or more groups of Nematode infestation. The clinical prevalence of Paramphistomiasis recorded in cattle has been reported.

In comparison to gynaeco-obstetrical and anoestrus treatment were recorded 56.39% retained placenta (cattle 30% and goats 50%) and repeat breeding (cattle 70% and goats 50%), Samad (2001). This findings is contradicts with the reports of Rahman et al. (1999) and Samad (2001), he reported that 0.37% and 0.50% cases of retained placenta in cows, respectively. Hossain et al. (1986) and Rahman et al. (2012) reported 9.1% and 8.1% cases of retained placenta in cows. Repeat breeding Repeat breeders are those female ruminants that fail to conceive after three or more regularly spaced services in the absence of detectable abnormalities of the internal genitalia (Samad, 2002). This disorder was recorded in 70.0% cattle and 50.0% goats. These findings support to the observation of Rahman et al. (1975) and Hossain et al. (1986) who reported 22.0% and 63.0% incidence of repeat breeding syndrome among the reproductive disorders in cattle, respectively. However, Rahman et al. (1999) and Samad (2001) reported 0.64% cattle and 1.26% and 0.24% prevalence of repeat breeder cattle and goats.

Under better progenies and breed improvement activity total no.13554 of A.I. were done in this year, in which 27.77% des/ indigenous and 72.23% exotic/ cross breeds. The prevalence of conception has a significant difference between breeds of cow (Ferguson et al., 2013). The non-return rate for first service was 58.54%. The median days to first service (DFS), inter-service interval (ISI) and gestation length (GL) were 126, 30 and 278 days respectively. AI season there was a significant difference in conception between winter and spring (Grimard et al., 2006). In cows that did not conceive totally the owner losses and until the cows became culled. Therefore to increase the conception rate and decrease the economic loss, farmers should supervise the cattle and other animals regularly, identified estrous phase and, the AI technicians should be trained to conduct the AI service accurately (Siddiqui et al. 2013)

Sexed sorted semen programme, the conception rate were 36.06% and 35.27% in cow and buffalo respectively with percentage of female calves were 46.78% and 21.39% respectively.

The objective of this study was to determine the association between the timing of an AI and the P/AI, early insemination (i.e., close to the onset of estrus) in Holstein heifers inseminated with either sexed or conventional semen. The frequently causes for a reduction in fertility are individual bull differences with regard to the sorting process, the lower sperm concentration for straws containing sexed semen, and farm-individual reproductive management strategies (Maicas C.et al., (2020), Vishwanath R. et al., (2018), Lenz R.W. et al., (2017)). A recent meta-analysis (Reese S. et al., 2021), including 45 field studies from 1999 to 2021, evaluated the reproductive success of bovine sexed semen and provided evidence that the refinement of sex-sorting technology resulted in increased P/AIs.

Medicinal cases (gastrointestinal nematodiasis, diarrhoea, fascioliasis, paramphistomiasis and fever) were recorded lower in ruminants than small non-ruminant and poultry (ruminant 6.3% and non-ruminant 93.72%). The occurrence of bloat and gastrointestinal disorders in cattle supports the earlier finding of Rahman et al. (2012) who reported 2.2% bloat in cattle and 2.5% in goats. Fever Analysis of the clinical cases of ruminants revealed that 7.8% cattle and 12.7% goats were affected with fever of unknown etiology. The occurrence fever percentages in this study supports the earlier reports of 5.1% to 12.1% cases of fever in cattle (Samad, 2001; Samad et al., 2002; Rahman et al., 2012). Anorexia was reported in cattle

and goats (Prasad et al. 1980) recorded anorexia syndrome as one of the commonest problem amongst the non specific clinical entities in routine ruminant practice. These observations could be compared well with the findings of Hossain et al. (1994) and Rahman et al. (1999), who reported 4.0% and 0.37% prevalence of bloat in buffaloes and cattle, respectively. Diarrhoea and Dysentery were found to be the major digestive disorders in ruminants. Samad (2001) reported 25.97% and 9.91% of diarrhoeal diseases in cattle and goats, respectively. Rahman et al. (1999) reported 4.78% of diarrhoeal diseases in cattle. Cases of mange/ ectoparasite infection in cattle goats and dogs were comparatively higher than the reports of Samad (2001). However, Demodectic mange in dogs (Samad et al., 1979; Nooruddin and Rahman, 1985), psoroptic mange in goat (Rahman et al., 1978) has been reported.

Conclusion:

This study was conducted to detect the present situation of occurrence of clinical diseases and disorder in the study area. From the study, it was observed that both cattle and goats were most susceptible to parasitic infestation. Parasitic infestation causes heavy economic losses in every year. So, regular anthelmintic treatment should be given to control the parasitic disease. The district has border area as a result diseases like FMD and PPR were frequently outbreaks in cattle and goat respectively. So, further research should be required to determine the accurate prevalence of viral and bacterial disease spreading and disorders in cattle and goat. Proper planning and vaccination programme should be undertaken to prevent and control diseases, disorders and increase success percentage in A.I. and sexed sorted semen technology extension in study area. This study aimed to systematically review the existing literature and provides a standard estimate of the prevalence of various livestock diseases in district U.P. This would pave the way for epidemiological modelling, which would help to formulate and evaluate control strategies in the distant future.

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