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Prevalence of subclinical mastitis in dairy cattle in the region of Jaipur district in Rajasthan

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Abstract

The purpose of this experimental was to regulate the incidence of subclinical mastitis (SCM) in dairy cattle of the Jaipur district in Rajasthan. Collection of total 400 milk samples from one hundred cattle for the study and afterward selected for SCM using some secondary tests *viz.* California mastitis test (CMT), Somatic cell count (SCC). Overall occurrence of sub-clinical mastitis in one hundred lactating dairy cattle founded in this study on the basis of CMT, SCC, were fifty one per cent and fifty four per cent, on the cattle basis 29.50% and 33%.

Keywords: Subclinical mastitis (SCM), CMT, Somatic Cell Count, Jaipur

1. Introduction

Ac to Watts, (1988 ^[9]) mastitis is a inflammation of the mamaery gland due to infection by bacteria, virus and parasite and any turuma of the udder. The subclinical mastitis are more problems and loss of milk quantity and quality of milk Singh are loss of appetite high temperature redness, loss of weight (Gruet *et al.*,) ^[2] clinical mastitis are classified in three groups in mild form symptoms are milk changes, moderat form symptoms are milk changes and udder inflammation, or severe form symptoms are milk changes and udder symptoms. (Gruet, *et al.*, 2001) ^[2]. Changes components of milk and pH ion and higher somatic cell into milk.

2. Material and Method

2.1 Collections of samples

Four hundred milk samples collected from the hundred healthy lactating dairy cattle in the Jaipur district using aseptic technics by wash the udder, and apply seventy percent ethyl alcohol.

2.2 Analytical procedure

2.2.1 California mastitis test

California test for mastitis diagnosis in dairy farming for udder abnormalities manage this test identified the sub clinical infection. The mastitis sample show under the degree of precipitation and formed of gel due to leucocytes cells.

2.2.2 Somatic Cell Count

Take milk sample with and spread on glass slide with grease free after smear allowed air dry and fix with xylene. After air fixed smear fixed with ninty nine per cent methanol for two minutes and wash with distilled water. Than fix with Giemsa stain for thirty minutes. Than kept phosphate buffer solution and pH 7 after that seen under immersion (100x) and count the cells in total twenty fields.

3. Results and Discussion

In the present studies, a total number of one hundred cattle were screened on the basis of California Mastitis Test (CMT), Somatic Cell Count (SCC), for subclinical mastitis.

Table 1: Results of different diagnostic tests used for detection of sub clinical mastitis (cattle-wise and quarter-wise)

Analytical test	Affected cattle (out of 100 cattle)	Percentage (%)	Affected quarters (out of 400)	Percentage (%)
California Mastitis Test (CMT)	51	51	118	29.50
Somatic Cell Count (SCC)	54	54	132	33

Out of four hundred quarters of one hundred cattle four hundred functional quarters were inspected during the studies. Based on California Mastitis Test occurrence of mastitis was (51/100) on cattle basis and 29.50% (118/400) basis on (Table 1). Prevalence during studies were according to the studies of Kumar (2010) ^[4], Marwaha (2018) ^[5] and Kachhawa (2019) ^[3] wherein they studies cattle-wise prevalence as fifty four per cent, 54.09 per %, 49.78%t and 48%, respectively Mir *et al.* (2014) ^[6], Savita (2016) ^[7] and Kachhawa, (2019) ^[3] reported quarter-wise prevalence 31.02%, 29.20%, 30.73%, 29.50% and 27.31%, respectively.

Occurrence of SCM on basis SCC was studied as (54/100) on cattle basis and thirty three per cent (132/400) on quarters basis (Table 1). Similarity with Sharma *et al.* (2012) ^[8] and Atakan, 2008) ^[1].

4. Conclusions

It may be concluded that subclinical mastitis occurrence in Jaipur district was found to be elevated. There may be changes in occurrence rates of milk somatic cell number due to the different manage mental practices in individual dairy herds accompanying with several predisposing factors such a size of herd, lactation stage, breed, climatic changes, milk yield, udder morphology, and poor hygienic practices.

5. References

1. Atakan KO. Factors influencing daily yield, somatic cell count and non-fat dry matter content of milk. Indian Veterinary Journal. 2008;85:630-2.
2. Gruet P, Maincent P, Berthelot X, Kaltsatos. Bovine mastitis and intramammary drug delivery: Review and perspective advanced drug delivery reviews. 2001;50:245-259
3. Kachhawa JP, Marwaha S, Savita TC, Singh AP, Chahar A, Gupta SR. Prevalence study on subclinical mastitis in cross-bred cattle in Bikaner city of Rajasthan. 2019;49:27-31.
4. Kumar S. Development of herbal remedies for management of subclinical mastitis in bovines. Thesis, M.V.Sc. GB Pant University of Agriculture and Technology, Pantnagar (India); c2010.
5. Marwaha S. Therapeutic studies of *Piper nigrum* in subclinical mastitis in cattle. M.V.Sc. thesis submitted to Rajasthan University of Veterinary and Animal Sciences, Bikaner; c2018.
6. Mir AQ, Bansal BK, Gupta DK. Subclinical mastitis in machine milked dairy farms in Punjab: Prevalence, distribution of bacteria and current antibiogram. Veterinary World. 2014;7:5.
7. Savita. Studies on some aspect of subclinical mastitis in cattle. M.V.Sc. Thesis submitted to Rajasthan University of Veterinary and Animal Science; c2016.
8. Sharma A, Singh R, Beigh SA, Bhardwaj RK. Prevalence of subclinical mastitis in cross breed cattle from Jammu region. Veterinary Practitioner. 2012;13(2):356-35.
9. Watts JL. Etiological agents of bovine mastitis. Vet. Microbial. 1988;16:41-66.