

Summary And Conclusions

S U M M A R Y

I. Epidemiology : Incidence.

1. Breed : Gir and Gir X Holstein Friesian cross-breds had higher incidence of mastitis than Gir X Jersey crossbreds.
2. Age : After eight years of age, incidence of mastitis was found to be increased above 50%, in cattle and buffaloes.
3. Number of lactations : There was higher incidence of bovine mastitis in third and fourth lactation.
4. Number of quarters : In bovine mastitis, single quarter infections were more common than two, three and four quarters infections.
5. Type of quarter : In buffaloes, hind quarter infections were more common than fore quarter infections.
6. Subclinical mastitis : Incidence of subclinical mastitis was recorded as 32.89% animalwise and 12.76% quarterwise.

II. Modified California Mastitis Test :

On the basis of cultural tests, efficacy of MCMT was found to be 94.67% when ++ milk samples were studied.

III. Cultural examinations:

The chief aetiological agent of bovine mastitis was coagulase positive staphylococci (35%), followed by coagulase negative staphylococci (22%) and streptococci (17%).

IV. Sensitivity Test :

Microorganisms were found, highly sensitive to gentamicin (78%), neomycin (65%), cloxacillin (59%), ampicillin (57%) and oleandomycin (55%). Microorganisms were found highly resistant to penicillin (75%), furazolidone (74%), tetracycline (72%), chlortetracycline (71%) and nitrofurantoin (70%).

V. Treatment :

Tilox vet. (ampicillin + cloxacillin) was found to be 83.97% effective and Gentavet (gentamicin) was found to be 100% effective, quarterwise.

VI. Repeat cases :

Incidence of cases which did not respond to the treatment; was 13.73% animalwise and 9.59% quarterwise. In all, seven cases repeated and out of this six responded to second treatment and one mastitis case due to Corynebacterium pyogenes ^{did not respond to third} treatment and resulted into permanent loss of that quarter.

VII. Treatment with povidone iodine :

This chemotherapeutic agent was found to be very useful in clinical cases which did not respond to antibiotic therapy as well as to dry off the quarters in chronic cases of mastitis.

VIII. Milk yield :

After the treatment, there was not appreciable difference in milk yield of cattle and buffaloes, during the same lactation.

The MCMT reagent is economical and can be prepared in laboratory or in any dispensary. The reagent is 94.57% efficient in highly positive milk samples of subclinical mastitis.

It was observed that, the chief aetiological agent was staphylococci followed by streptococci.

The microorganisms were found highly sensitive to gentamicin, neomycin, cloxacillin, ampicillin and oleandomycin, while they were highly resistant to tetracyclines, streptopenicillins and nitrofurans. This concludes that routine antibiotic preparations available in the market are of little use as they contain streptopenicillins, tetracycline and nitrofurans.

New preparations- Gentavet and TiloX were found to be very effective in the treatment of bovine mastitis.

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C O N C L U S I O N S

Breed, age, number of lactations, number of quarters and type of quarter of the animals have bearing on the incidence of bovine mastitis.

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This study has shown that 13.73% cases did not respond to first treatment. To ensure whether the animal is responding to the treatment or not, MCMT should be repeated 72 hours after last treatment. As a follow-up,

they must be treated according to cultural and sensitivity tests. Those cases which do not respond after third treatment, their fate should be decided, on economy.

In treatment with povidone iodine 1% and 5% were tried in some clinical and subclinical cases, the response was inconclusive. So more research has to be carried out to decide its exact use.

After the treatment of bovine mastitis, there are little chances of increase in milk production during the same lactation.