Introduction

I N T R O D U C T I O N

The term mastitis refers to inflammation of the mammary gland regardless of the cause. It is characterised by physical, chemical and usually bacteriological change in the milk and by pathological changes in the glandular tissue as described by Blood, et al. (1983).

In India the prevelence of subclinical mastitis in cows is 54% and in buffaloes 23.86% (Singh & Baxi, 1980). The subclinical mastitis is undetectable externally but now-a-days the diagnosis of mastitis depends largely on indirect tests which depend, in turn, on the leukocyte content of the milk.

Although mastitis occurs sporadically in all species, it assumes major economic importance in dairy cattle. In milking buffaloes, the epidemiological pattern is similar and similar patterns of loss could be expected.

Singh et al. (1982) noted that, loss of milk as a result of subclinical mastitis was 0.23 Kg. per day in cattle and 0.35 Kg. per day in buffaloes.

Morris (1973) reported that infections lasting over three months depressed the relative yield of affected quarters by an average of about 35%, while transient infections depressed yield later in the same lactation by 13%.

There is an additional danger that the bacterial contamination of milk from affected cows may render it unsuitable for human consumption, or interfere with manufacturing process or, in rare cases, provides a mechanism of spread of disease to humans e.g. tuberculosis, streptococcal sore throat and brucellosis.

Blood et al. (1983) suggested that the total losses caused by mastitis are composed of 1) Value of milk production lost (70%), 2) Value of cows lost by premature culling (14%). 3) Value of milk discarded or downgraded (7%) and 4) Treatment and veterinary expenses(8%).

Higgins (1981) reported that reproductive inefficiency was the major cause of culling (39%), followed by planned culling, principally for poor milk yield (24.7%) and mammary disorders (21.2%). 90% of mammary problems were mastitis.

Occurence of mastitis varies with the species of bacteria. Organisms like, Staph aureus, E. coli and lesser coliforms cause loss of life; Corynebacterium pyogenes causes complete loss of quarters; staphylococci and streptococci cause acute clinical mastitis, particularly the latter, but their principal role is in causing subclinical mastitis resulting in reduction of milk produced and a downgrading of its quality. (Blood et al. 1983).

It was, therefore, thought to undertake a multifaceted study on subclinical mastitis, along with few cases of clinical mastitis; its diagnosis; cultural and sensitivity tests and treatment with recent chemotherapeutic agents e.g. povidone iodine, ampicillin cloxacillin and gentamicin.