

PREVALENCE OF SUBCLINICAL MASTITIS IN MURRAH BUFFALOES

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ABSTRACT

Prevalence of sub-clinical mastitis was determined in 239 quarter milk samples collected from 60 apparently healthy buffaloes. On the basis of International Dairy Federation criteria, 4.14, 4.60 and 2.09 per cent quarters were having sub-clinical, latent and non-specific mastitis, respectively. While considering the cultural examination and somatic cell count alone, 8.78 per cent and 6.27 per cent quarters were found positive for sub-clinical mastitis respectively. Out of 23 isolates, *Staphylococcus epidermidis* (39.13%) and *Staphylococcus aureus* (30.43%) were the predominant organisms followed by *Streptococcus dysgalactiae* (13.04%), *Streptococcus agalactiae* (13.04%) and diphtheroids (4.34%).

Key words: Murrah buffaloes, prevalence, sub-clinical mastitis

Mastitis refers as the inflammation of mammary gland resulting in physical, chemical and bacteriological changes in milk. It can be classified into clinical and sub-clinical forms. Sub-clinical form of mastitis remains unnoticed due to absence of gross abnormalities in milk and udder. Animal with sub-clinical mastitis (SCM) acts as a reservoir for infection to other animals within a herd. For adoption of proper treatment and control measures, an early detection of SCM and knowledge regarding prevalence of different mastitogenic organisms is imperative. Although some reports on prevalence of SCM are available in buffaloes but invariably these are based on a single parameter and do not fulfill International Dairy Federation (IDF) criteria which is based on cultural examination and somatic cell count (SCC).

MATERIALS AND METHODS

Milk samples were collected from 239 quarters of 60 apparently healthy lactating murrah buffaloes of livestock farm located at CCS Haryana Agricultural University, Hisar. After discarding first few streams of milk, the teats apices were thoroughly scrubbed with cotton swab soaked in 70 per cent alcohol and about 20 ml milk from respective quarter was collected in

sterilized test tubes. Bacteriological examination and the SCC of milk samples were performed as per the method described by Brown *et al.* (1981) and Schalm *et al.* (1971), respectively.

RESULTS AND DISCUSSION

Milk samples of 60 apparently healthy buffaloes were screened for SCM, of which 30 per cent were culturally positive. Quarter-wise prevalence rate was found to be 8.78 per cent. Almost similar findings have been observed by Ahmad *et al.* (1991) and Dhakal and Kapur (1992), who reported quarter-wise infection rate ranging from 6.95 to 7.5 per cent. In contrast, Saini *et al.* (1994) reported lower quarter-wise prevalence rate of 2.59 per cent. However, Said and Abd.El-Malek (1968), Kalorey *et al.* (1983), Tuteja (1999) and Saxena (2000) had reported a comparatively high quarter-wise prevalence of SCM ranging from 15.65 per cent to 52.30 per cent. Tijare *et al.* (1999) suggested that the variation in prevalence rate might be due to various factors like climate, breed, managerial and hygienic practices adopted and the stage of lactation. The low prevalence of SCM in present study might be due to improved managerial conditions and adoption of proper control measures at the farm. Schultz *et al.* (1978) have reported 50% prevalence of SCM in herds not

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