

## Identification of Bovine Mastitis Causing Bacteria and Possible Antibiotic

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Mastitis is an inflammation of mammary gland. It is the most prevalent production disease in dairy herds world-wide and under untreated conditions, it constitutes a serious problem in dairy herds with considerable economic consequences, mainly due to fall in milk production, decreased milk quality for dairy purposes and poor milk hygiene. Livestock is an important traditional economic activity and is integrated with crop cultivation in Kilinochchi district. This sector considered as major source of income for farming society in the region. The present study was carried out to identify the mastitis causing bacteria and identify possible antibiotics for the CMT positive bacteria in Kilinochchi district from November 2018 to March 2019. A total of 136 (n=136) lactating cows were randomly selected to identify the mastitis from four veterinary ranges in Kilinochchi district. Karachchi (n=32), Kandawalai (n=42), Poonakari (n=39) and Pachchilaipalli (n=23) were the veterinary divisions in Kilinochchi district and sampling was done in all four ranges. Milk samples were screened for mastitis by using California Mastitis Test (CMT). The CMT positive samples were subjected to isolation and identification of bacteria and also subjected to Antibiotic Sensitivity Test (ABST). Result showed that 14.7 % (n=20) lactating cows were positive to CMT. All positive samples were inoculated in the nutrient agar medium and showed colony formation. For the identification of Gram positive and Gram negative bacteria, single colony was subjected to catalyst test. Catalase positive reaction was confirmed by immediate effervescence (bubble formation) formation from all 20 samples indicating presence of Gram positive bacteria. From all CMT positive milk samples, only one bacterial agent, *Staphylococcus* spp. was isolated. From the Antibiotic Sensitivity Test result, 35 % (n=7) of bacterial isolates were sensitive to Enrofloxacin while 25 % (n=5) of bacterial isolates were sensitive to Cloxacillin.

**Keywords:** Inflammation, Mastitis, *Staphylococcus*, Udder infection