



## ABSTRACT

The present study was established to evaluate *Staphylococcus aureus* coagulase positive being a troublesome pathogen, surrounded by inflammation of udder from subclinical cases of bovine mastitis and to explore the relationship of assumed possible aspects of mastitis. One hundred samples of milk were taken from buffaloes and cattle from various villages of District Lahore and Sheikhpura by Surf field mastitis test (SFMT) to isolate *S. aureus* for mastitis. Information concerning with some possible aspects related with subclinical mastitis in bovines were also taken from the field and analyzed by biochemical characterization and PCR techniques targeting coagulase, mec A and enterotoxin A genes was developed. The study revealed 70% (70/100) prevalence of subclinical mastitis in bovines. Occurrence of mastitis in bovines and cattle were 57.2 and 42.8% respectively. Bacterial isolates were cultured in 61.4% (43/70) of milk samples from subclinical bovine mastitis and 27(38.6%) bacterial isolates showed negative result upon nutrient and mannitol agar. Results showed only 20/43 about 46.5% were positive to *S. aureus* and were preceded for further isolation of DNA and PCR. All 20 (100%) bacterial isolates of *S. aureus* were positive having gene size 720bp. The bacterial isolates of *S. aureus*, 40% (8/20) were positive to mec A having gene size 630bp. The methicillin resistant *Staphylococcus aureus* (MRSA) bacterial isolates were established by PCR directing mec A in *S. aureus*. From 20(46.7%) suspected bacterial isolates, not a single gene primer was positive to enterotoxin A gene which indicates that SEA is negative in causing mastitis due to *S. aureus*. It was concluded that *S. aureus* coagulase positive pathogen was the main source of mastitis in bovines and there was progressive relationship of nearly accompanied possible risk factors with the occurrence of mastitis.