

## ABSTRACT

Present study has been undertaken to evaluate bacterial contamination in raw, boiled and pasteurized milk. Research work was conducted for isolation and identification of pathogenic bacteria in milk and to determine their antibiotic sensitivity. Colour of milk observed was white in 13 samples and yellow in 2 samples. Total 10 pathogenic strains were isolated from milk samples; five pathogenic strains from raw milk, 3 from boiled milk and 2 from pasteurized milk. To determine optimum conditions for growth, these pathogenic bacteria were incubated at different temperatures and pH values. The optimum pH varies from 6.1 to 6.5 and optimum temperature was 37°C for all stains. Gram staining and biochemical tests revealed that these pathogenic bacteria include *Lactobacilli* sp., *E. coli*, *Salmonella* sp., *Pseudomonas* sp., *Streptococcus* sp. and *Staphylococcus* sp. S2 characterized as *Pseudomonas fluorescens*, S5 characterized as *Lactococcus lactis* and S9 as *Lactobacillus acidophilus* by ribotyping. Antibiotic sensitivity was also performed against all genera isolated. Prevalence of pathogenic organisms provided the evidence that contamination of milk arises during milking, transportation and storage of milk. Study showed that raw milk is more contaminated than other two types of milk because it contains highest percentage of pathogenic bacteria and pasteurized milk was found to be of best quality among three types. So it is recommended to drink milk after proper boiling or pasteurization.