

ISOLATION, IDENTIFICATION AND ANTIBIOTICS TREATMENT OF SOME BACTERIAL STRAINS CAUSED BOVINE MASTITIS IN LIBYA

Suzan K. Murad, Hatil H. EL Kamali & Manal A. Ibrahim*

Department of Botany, Faculty of Science and Technology, Omdurman Islamic University, Sudan.

*Corresponding author: Email manalabdalla071@gmail.com

ABSTRACT

Bovine mastitis is the major problem for milk producers throughout the world and responsible for substantial losses of revenue annually. Antibiotic therapy is an important tool in the scheme of mastitis control. A total of 181 milk samples from the farms were collected aseptically from suspected cows for mastitis. Seven bacterial strains (*Staphylococcus aureus*, *S. epidermidis*, *Streptococcus agalactiae*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Klebsiella spp.* and *Proteus spp.*) were isolated and tested for antibacterial activity of the drugs. *Staphylococcus aureus* isolates were the most predominant in dairy farms. The results declared that *Staphylococcus epidermidis* isolates were more sensitive to gentamycin (81.2%). Penicillin, erythromycin and neomycin are effective against *S. epidermidis*, while nitrofuratoin, penicillin, ampicillin and neomycin are effective against *S. agalactiae* isolates. On the other hand *P. aeruginosa* isolates were observed sensitive manner to gentamycin, penicillin, ampicillin and streptomycin whereas they showed resistant effects to erythromycin. However *Escherichia coli* isolates were exhibited inhibitory effects to nitrofuratoin, while they represented a negative response to penicillin and erythromycin. Also *Klebsiella spp.* and *Proteus spp.* isolates were showed sensitive results to gentamycin whereas resistant effects were occurred to penicillin. Remarkable antibacterial activities against *S.aureus*, *S.epidermidis*, *S. agalactiae*, *E. coli*, *P. aeruginosa* and *Proteus spp.* strains were shown for gentamycin and /or nitrofuratoin. The results indicated that the increasing prevalence of multidrug resistant strains with reduce susceptibility to antibiotics adds urgency to the search for new mastitis fighting strategies. Hence, there is a need to investigate the antibacterial properties of drugs that have not been done.