

Sensitivity of Staphylococcus aureus Isolated from Subclinical Bovine Mastitis to Ciprofloxacin in Dairy Herd in Tabriz during 2013

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Abstract : Mastitis is an inflammation of the parenchyma of mammary gland regardless of the causes. Mastitis is characterized by a range of physical and chemical changes in the glandular tissue. The most important change in milk includes discoloration, the presence of clots and large number of leucocytes. There is swelling, heat, pain and edema in mammary gland in many clinical cases. Positive coagulase *S. aureus* is a major pathogen of the bovine mammary gland and a common cause of contagious mastitis in cattle. The aim of this study was to evaluate the outbreaks of *Staphylococcus aureus* mastitis. This study is conducted in ten dairy herds about one thousand cows. After doing CMT and identifying infected cows, the milk samples obtained from infected teats and transported to microbiological laboratories. After microbial culture of milk samples and isolating *S. aureus*, antimicrobial sensitivity test was performed with disk diffusion method by ciprofloxacin, co-amoxiclav, erythromycin, penicillin, oxytetracyclin, sulfonamides, lincomycin and cefquinome. The study defined that the outbreak of subclinical positive coagulase *Staphylococcus* mastitis in dairy herd was 13.11% (5.6% *S. aureus* and 7.51% *S. intermedicus*). The antimicrobial sensitivity test shown that 87.23% of *Staphylococcus aureus* isolated from bovine mastitis in dairy herd was susceptible to ciprofloxacin, 93.9% to cefquinome, 4.67% to co-amoxiclav, 12.16% to erythromycin 86.11% to sulfonamides (cotrimoxazole), 3.35% lincomycin, 12.7% to oxytetracyclin and 5.98% to penicillin. Results of present defined that ciprofloxacin has a great effect on *Staphylococcus aureus* isolated from subclinical bovine mastitis dairy herd. It seems that cefquinome sulfonamides has a great effect on isolated *Staphylococcus aureus* in vivo.

Keywords : ciprofloxacin, mastitis, *Staphylococcus aureus*, dairy herd

Conference Title : ICVBS 2014 : International Conference on Veterinary and Biomedical Sciences

Conference Location : Toronto, Canada

Conference Dates : June 16-17, 2014