المجلة الجزائرية للمناطق الجافة
Journal Algérien des Régions Arides (JARA)
Algerian Journal of Arid Regions
CRSTRA
Scientific and Technical Research Centre for Arid Areas

Research Paper

Evaluation of the resistance to antibiotics of bacteria responsible for mastitis in cows in Southern Algeria

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Received: 05 November 2019 ; Accepted: 14 November 2019; Published: December 2019

Abstract

The aim of this study is to evaluate the sensitivity of germs isolated from mastitis towards different antibiotics.The work carried out on several cattle herds in the South region of Algeria. A total of 80bacterial strains were isolated to be the subject of a disk-diffusion agar antibiotic sensitivitytest,the bacterial strains were under the groups of Staphylococcus coagulase positive SCP (10), Staphylococcus coagulase negative SCN (35) andEnterobacteriaceae (35).Twenty-one antibiotic's effectiveness were put to the test. The results showed that 100% of the SCP strains were resistant to Penicillin G, while the SCN strains were less resistant to it with a resistance rate of71.42%. SCN strains' resistance was high towards oxacillin (68.57%), erythromycin (54.28%), clindamycin (54.28%), and for vancomycin (51.42%). However,no resistance was recorded against gentamycin. Enterobacteriaceae strains had a high resistance against the combination: Amoxicillin + clavulanate(74.28%).

On light of the results, the following antibiotics:Gentamicin, the combination Trimethoprim-sulfamethoxazole and enrofloxacin tend to be the best antibiotics to fight against mastitis in the center region of Algeria.

It must be noted that while being very effective, it's not recommended to use Gentamicin, because it is not that available in our region and is very costly; on the other hand we recommend the use of Sulfamides due to their availability in the Algerian market and being cheaper.

Key words: Mastitis, antibiotics, resistance, Southern Algeria.

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e-ISSN: 2676-2226, Published by: Scientific and Technical Research Centre for Arid Areas (CRSTRA)

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