Título: *IN VITRO* ANTIMICROBIAL ACTIVITY OF ENROFLOXACIN AND MARBOFLOXACIN AGAINST *Staphylococcus* spp. STRAINS ISOLATED FROM DOGS

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Resumo:

Staphylococci are gram-positive spherical bacteria worldwide distributed among mammals. These micro-organisms colonize the nasal cavity, skin and mucous membranes and are involved in a wide variety of pyogenic infections such as mastitis, dermatitis, otitis, arthritis, cystitis, among others. In general, Staphylococci are resistant to penicillin, streptomycin and tetracycline. Other antibiotics such as fluoroquinolones, chloramphenicol, erythromycin, cephalosporins, trimethoprim-sulfa and lincomycin are considered effective. However, the resistance of pathogens to various antimicrobial due to its excessive and indiscriminate consumption has become a serious public health problem of world order. The aim of this study was to determine the *in vitro* antimicrobial activity of two fluoroquinolones (enrofloxacin and marbofloxacin) against sixty strains of *Staphylococcus* spp.. The strains were isolated from different infectious diseases originating from dogs in 2012-2014 at the Laboratory of Medical Veterinary Microbiology at the University of Brasilia. Different *in vitro* antimicrobial susceptibility patterns were obtained using the method of the disk diffusion by Kirby-Bauer. As a result, thirty-four of the sixty strains (56.7%) were susceptible to marbofloxacin and twenty-eight (46.7%) to enrofloxacin; twenty-two (36.7%) were resistant to marbofloxacin and other twenty-two (36.7%) to enrofloxacin. Twenty-eight of the sixty strains (46.7%) were susceptible to both antibiotics at the same time and twenty (33.3%) showed multiple resistance to both fluoroquinolones. These results may suggest an increase in the resistance of these pathogens to the antibiotics tested since an earlier similar study showed a much higher percentage of sensitivity. It can be concluded that many isolates of *Staphylococcus* spp. were resistant to the fluoroquinolones tested. This fact is a concern for both animals and humans, specially for those humans who are in constant contact with these animals.

Palavras-chave: Staphylococcus. Fluoroquinolones. Dogs.

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