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ANTIMICROBIAL SENSITIVITY PROFILE OF *Staphylococcus spp.* ISOLATED FROM CLINICAL MASTITIS [1]

PERFIL DE SENSIBILIDADE ANTIMICROBIANA DE Staphylococcus spp. ISOLADOS DE MASTITE CLÍNICA

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Inflammation of the mammary gland, which is also known as mastitis, occupies a prominent place among the diseases that affect dairy cattle, having a great economic importance in the dairy sector. Mastitis may have different origins, however, infectious mastitis is the most frequent and represents a risk to public health due to the propagation of microorganisms through milk. *Staphylococcus spp*. are considered the microorganisms that cause the greatest losses in milk production, being that *Staphylococcus aureus* is the pathogen of major importance because they present high resistence to antimicrobials. Empirical treatment, without prior identification of the pathogens and their resistance profile, may contribute to the emergence of multidrug-resistant strains and risk the efficiency of the antimicrobial. In that scenery, the study aimed to evaluate the resistance profile of *Staphylococcus spp.* against some antimicrobials used in the treatment of cows with clinical mastitis. The study was conducted on a property in the state of São Paulo from January 2011 to June 2012. We evaluated 29 lactating cows that present clinical mastitis in, at least, one mammary quarter. The diagnosis of clinical mastitis was performed by evaluating the clinical signs and also by Tamis test. Samples of milk from mammary quarters were collected aseptically in sterile tubes for microbiological evaluation. Microorganisms were isolated on sheep blood agar 5% and Sabouraud agar with chloramphenicol. The sensitivity profile of *Staphylococcus spp.* to the antibiotics ampicillin, cephalexin, ceftiofur, cefaclor, gentamicin, kanamycin, neomycin, penicillin G and oxacillin, was tested by disk diffusion test on Mueller-Hinton agar. From a total of 106 samples of milk analyzed, 64 (60.38%) presented microbiological growth, being observed isolation of *Streptococcus spp*. 29 (34.52%), *Staphylococcus spp*. 28 (33.33%), *Corynebacterium spp.* 17 (20.24%), filamentous fungi 4 (4.76%), yeast 4 (4.76%) and Gram-negative bacilli 2 (2.38%). From total of *Staphylococcus spp.* isolates, 67.86% were sensitive to all antibiotics tested. Resistance to penicillin G was evidenced in 25% of the strains, to ampicillin in 28.57% and 10.71% to neomycin. It was also observed that 3.57% of strains tested were resistant to all antibiotics. The isolation of multidrug-resistant strains presents risks to the health of the animal and the consumer because they can be transmitted through milk products. The identification of pathogens and the performance of antimicrobial susceptibility profile are essential for monitoring and control of multidrug-resistant strains.

Key words: dairy cattle, milk, multidrug-resistance.