TITLE: MULTIDRUG-RESISTANT *Staphylococcus* spp. ISOLATED FROM BOVINE MASTITIS

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ABSTRACT:

Mastitis is a worldwide problem and the most important disease in dairy herds. The genus *Staphylococcus* is one of the most important pathogen of bovine mastitis. Trends in antimicrobial resistance of staphylococci isolates from milk are of public health concern given the possible for the spread of resistant microorganisms to humans. The present work evaluated the resistance among 88 staphylococci from bovine mastitis. The isolates obtained in this study comprised 25 (28,4%) *Staphylococcus xylosus,* 18 (20,4%) *Staphylococcus aureus*, 16 (18,2%) *Staphylococcus simulans,* 8 (9,1%) *Staphylococcus warneri,* 4 (4,5%) *Staphylococcus intermedius*, 4 (4,5%) *Staphylococcus saprophyticus,* 3 (3,4%) *Staphylococcus haemolyticus,* 3 (3,4%) *Staphylococcus hominis* subsp *hominis*, 2 (2,3%) *Staphylococcus epidermidis,* 2 (2,3%) *Staphylococcus capitis,* 2 (2,3%) *Staphylococcus cohnii* subsp *urealyticum* and 1 (1,1%) *Staphylococcus schleiferi* subsp *schleiferi*. Antimicrobial resistance patterns for aminoglycosides, lincosamides, macrolides, cephalosporins, sulphonamides and tetracyclines were determined by disc diffusion assay. Two isolates (2,3%) were identified as MDR (multidrug-resistant), one *S. xylosus* and one *S. haemolyticus*. Coagulase-negative staphylococci (CNS) were considered minor mastitis pathogens, but nowadays results on several aspects are changing the true importance of CNS for udder health, such as virulence potential, drug resistance and the effect of CNS on somatic cell count (SCC). This study confirms the existence of MDR pathogens causing bovine mastitis and the importance of coagulase-negative *Staphylococcus* affecting the dairy herds, that may represent a serious challenge for clinicians and a problem of public health.

Keywords: staphylococci, antimicrobial resistance, coagulase-negative *Staphylococcus*

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