

**Poster (Painel)****PROFILE OF SENSITIVITY AND RESISTANCE OF *Staphylococcus aureus* BIOFILMS PRODUCERS ISOLATED FROM CASES OF MASTITIS AND MILKING ENVIRONMENT**

184-1

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**Resumo**

The prevalence of *Staphylococcus aureus* in mastitis of dairy herds is due to high infectivity associated with virulence factors that give the organism the ability to install in the mammary gland. Therefore the objective of this research was to evaluate the sensitivity and resistance of *Staphylococcus aureus* biofilm producers isolates from cases of bovine mastitis and milking environment. We evaluated 36 strains, being 32 strains isolated from milk of cows with mastitis, 2 from blowers, 1 isolated from conductive milk hose and 1 from milk expansion tank. After isolation and characterization of strains such as *Staphylococcus aureus* tests were then performed to assess the ability of biofilm production by the microtiter test, *icaAD* and *bap* genes and pulsed field gel electrophoresis and susceptibility profile and resistance strains in adhesion model of biofilms front of Gentamicin, Erythromycin, Rifampicin, and Kanamycin at concentrations of 0.1mg/mL and 0.5mg/ml in time of 6 hours of contact between bacteria and antibiotics. The results revealed that from tested microorganisms were identified 25 pulsotypes and of these predominated two pulsotypes and the others pulsotypes differed with regard to the epidemiological classification. Regarding the production of biofilm in microtiter test all samples (100%) produced biofilms and showed genes *icaAD* and 4 (11%) showed gene *bap*. With regard to susceptibility and resistance against microbial strains tested was found that in the concentration of 0.1mg/mL the antibiotic Gentamicin was the most efficient with an average colony count of 41colonies forming units /mL. There was a high reduction of the cell count in some bacterial strains and in others such reduction was low in biofilms demonstrated that strains can be 10 to 1,000 times more resistant than in planktonic form. Concentration of 0.5mg/ml the most efficient antimicrobial was Kanamycin with average count of 38 colonies forming units/mL. It is concluded that the resistance and sensitivity of microorganisms in biofilms change relative to the concentration and to the antimicrobial agent, and it's difficult to treat the animals with mastitis by these bacteria being more resistant in models of biofilms. In addition, the presences of biofilm-producing bacteria in the milking environment function as a constant focus of milk contamination.