



31st World Veterinary Congress
150th Anniversary of the World Veterinary Association
Prague, Czech Republic | 17–20 September 2013

Proceedings & Abstracts

BOVINE MEDICINE
POSTER SESSION ABSTRACTS





ID: 367

PRODUCTION OF BIOFILMS BY STAPHYLOCOCCUS AUREUS ISOLATES FROM ENVIRONMENTAL MILKING AND MASTITIS CASES IN DIFFERENT SEASONS

P. Castro Melo¹, V. Souza², C. Chioda de Almeida³, A. Nader-Filho³, P. Pinto Gontijo-Filho¹

¹ Laboratory of Microbiology, Federal University of Uberlândia, Uberlândia-MG, Brazil

² Empresa Brasileira de Pesquisa Agropecuária -Caprinos e Ovinos, EMBRAPA, Sobral-CE, Brazil

³ Departamento de Medicina Veterinária Preventiva, UNESP, Jaboticabal-SP, Brazil

Topic: 3. Bovine Medicine / Mastitis

The pathogenic bacteria *Staphylococcus aureus* are of great importance in dairy farming and the production capacity of these microorganisms biofilm increases its prevalence in the environment milking interfering in the quality control of milk and subclinical mastitis. The aim of this study was to evaluate capacity of biofilms of *Staphylococcus aureus* isolated in the milking environment. Milk samples were collected and swabs from different points in the milking environment for a period of twelve months, and subjected to microbiological analysis, biochemical and PCR for confirmation and identification of *Staphylococcus aureus*. Thereafter, it were evaluated the ability of biofilm production by these strains. The tests were performed: test of congo red agar, microplates and presence of genes involved in biofilm formation by PCR. The results showed that the Congo red agar and microplates were 57% and 60% of the strains isolated from milk respectively were positive, and 25% of the strains isolated from the environment milking in each test were positive. Regarding the period of year the months with the highest isolation of strains producing biofilms were May, June, July, August and September for isolates from milk and August, September and January for isolated of environment. Regarding the genes that had higher percentages were genes: *hla*, *clfa*, *clfB*, *agrA*, *icaD* and *sarA*. It is concluded that it is important to monitor both the microorganisms in the environment as milking animals with subclinical mastitis thereby preventing the persistence of these pathogens.