TITLE: FREQUENCY AND ANTIMICROBIAL RESISTANCE PROFILE OF BACTERIA ISOLATED FROM BOVINE MASTITIS OF DAIRY HERDS OF THE INTERIOR OF THE STATE OF MATO GROSSO

AUTHORS: ALVES, T. C. S.[1]; SHEIN, F. B.[1]; PENA, J. L.[2]; MOREIRA, M. A. S.[2]

INSTITUITION: 1. UNIVERSIDADE DE CUIABÁ, CUIABÁ, MT (RUA MANOEL JOSÉ DE ARRUDA, Nº 3100 – BAIRRO JARDIM EUROPA - CEP: 78065-900 – CUIABÁ – MT); 2. UNIVERSIDADE FEDERAL DE VIÇOSA, VIÇOSA, MG (LABORATÓRIO DE DOENÇA BACTERIANAS - DEPARTAMENTO DE VETERINÁRIA - AVENIDA PETER HENRY ROLFS, S/N - CAMPUS UNIVERSITÁRIO, 36570-900 - VIÇOSA - MG);

ABSTRACT:

Although mastitis is a widely studied disease, it is important to highlight that work with mastitis isolates in the state of Mato Grosso is still few, due to the predominance of beef cattle in the region, but promising dairy products are emerging in the state; who need better milk, raw material. The objective of this work was to determine the frequency and antimicrobial resistance profile of bacteria isolated from milk of animals with clinical and subclinical mastitis coming from properties belonging to municipalities in the interior of the state of Mato Grosso: Caceres, Araputanga and Campo Verde. For this, 43 milk samples were collected from 157 lactating animals. Traditional microbiology procedures were used to obtain milk samples and later to obtain pure cultures. Fifty-two colonies were obtained which were identified using morpho-tinctorial and biochemical characteristics. The presence of *Staphylococcus* (46.18%) *Streptococcus* (26.92%), *Enterococcus* (9.61%) *Corynebacterium bovis* (7.69%) *Bacillus cereus* (5.76%), *Listeria* and *Nocardia* 1. 92% each. Using the Kirby-Bauer method of disc diffusion, it was found that *Staphylococcus*, 58.33% were resistant to ampicillin, 33.33% to amoxicillin, 25% to sulfonamides, 4.16% to gentamycin, 8.33% to cephalexin, ceftiofur and enrofloxacin; Were resistant to ampicillin, amoxicillin and ceftiofur, all isolates of *Bacillus cereus* were resistant to ampicillin and amoxicillin, 66.66% resistant to cefalexin, ceftiofur and ceftiofur. 40% were resistant to ampicillin, amoxicillin and sulfonamides, 20% to cephalexin and ceftiofur, and finally *Corynebacterium bovis*, 33.33% were resistant to ampicillin, amoxicillin, cephalexin and sulfonamides. A higher frequency of *Staphylococcus*, followed by *Streptococcus*, and a higher resistance to aminopenicillins (ampicillin and amoxicina) and sulfonamides were observed in the isolates of mastitis cases in dairy herds of Caceres, Araputanga and Campo Verde. Due to the scarcity of information, the identification of bacterial isolates and the characterization of their resistance profiles may become predictive of minimizing mastitis-related losses and socioeconomic and cultural development of the region.

Keywords: livestock; disease; microbiology; antibiotics.

Development Agency: Group Kroton-UNIC; CNPq; CAPES.