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Occurrence of mastitis before and after homeopathic treatment in dairy cattle, in the state of Rio de Janeiro, Brazil.

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Abstract

Bovine mastitis is an infectious disease that impacts milk production and leads to economic losses and public health problems. It can present in subclinical and clinical forms. The treatment generally used is antibiotic therapy, but the resistance to bovine’s Staphylococcus aureus has increased in Brazil (Rabello et.al., 2020), which makes homeopathy an important therapy option. In our study, two dairy herds in Rio de Janeiro state were evaluated, regarding the presence of mastitis, in two subsequent periods: (1) Control Stage (CS): antibiotic therapy, chosen after isolation, identification and antimicrobial susceptibility testing of mastitis bacteria, and (2) Experimental Stage (ES): nosode (Staphylococcus aureus 30 cH + Staphylococcus spp. 30 cH + Enterobacteriaceae 30 cH, in equal parts), whose microorganisms were isolated from mastitis in the dairy herds studied. The CS took place from February to April 2022 and the ES from May to July 2022. To analyze the treatment, the animals were evaluated with the California Mastitis Test (CMT), and the milk from mammary quarters, that presented mastitis, was collected and analyzed for bacterial isolation and identification in MALDI-TOF. During the CS and ES, 7 CMTs were performed. The occurrence of subclinical mastitis in the CS in 1681 analyzed quarters was 36.4% (n= 608), while in the ES, in 1290 analyzed quarters, mastitis was 26.5% (n= 335). The number of samples in the CS was slightly higher because some animals were removed from production (milk drying) during the ES. There was a reduction (p<0.0001) in the occurrence of subclinical mastitis after homeopathic treatment. In both stages, Staphylococcus spp. was the most prevalent microorganism. Considering that the two dairy herds were analyzed during CS and ES, some external factors such as environmental, origin, and breed of cattle and level of exposure to bacteria remained the same in both periods, it is inferred that there was an insignificant influence on the results.

Keywords: Subclinical Mastitis, Staphylococcus spp., Nosode.

References


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