

Evaluation of dry cow therapy effects on mammary infections and milk production rates in Holstein breed

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Abstract

The infection in dairy heifers may damage the developing secretory tissues reducing the future milk production in such animals. The efficacy of antibiotics for treating MI in unbred and primigravid heifers has been demonstrated by a few researchers. The objective of the present study was to compare the times of dry cow therapy in control of postpartum MI and milk production in primigravid heifers. For this purpose, 75 primigravid heifers were selected and placed in three groups including 60 days before parturition (group A), 30 days before parturition (group B), and 30-60 days before parturition (group c). Prepartum mammary glands secretions were collected to investigate microbial contamination. Then, intramammary treatment with cloxacillin ointment was done in 50 heifers in two groups of A and B. In third day after parturition, 10 ml milk sample of 75 heifers was collected separately in a 12ml sterile tube to investigate microbial contamination. Milk producing of heifers in three groups was recorded in 30, 60 and 90 days after parturition. Based on bacterial culture results mammary gland secretaries, in before and after parturition, the least bacterial contamination was observed in group B heifers and the most contamination was observed in a control group of heifers. Between Heifers in group A and C, a significant difference was found. By survey on milk production of three group heifers, it was found that there is significant differentiation between milk production in 30 and 90 days after parturition in three group and maximum production was demonstrated in group B and then in heifers group A. In this research, the best response to the treatment was demonstrated in group B, but, because of probability of antibiotic persistence in milk, recommended that dry cow therapy be done in 60 days before parturition.

Keywords: Mastitis, Heifer, Dry cow, Milk production

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