A COMPARISON OF TWO TREATMENT PROTOCOLS FOR BOVINE CLINICAL MASTITIS USING CEFQUINOME

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The combination of parenteral and intramammary therapy against bovine clinical MASTITIS has been advocated to achieve better cure rates. The effect of a combined intramammary and parenteral application of cefquinome on cases of clinical MASTITIS was compared to intramammary treatment with cefquinome alone. A total of 181 cows on six dairy farms diagnosed as having clinical MASTITIS were randomly allocated to one of two treatment groups. Group A received three intramammary infusions of cefquinome 12 hours apart starting at 0 hours, Group B was treated with intramammary infusions as in group A in combination with an intramuscular injection of cefquinome at 0 and 24 hours. Milk samples were taken at day 0, 7, 14 and 21 for bacteriological diagnosis and monitoring of bacteriological cure and at day 7, 14 and 21 for somatic cell count (SCC). Bacteriological cure was defined as absence of the initial pathogen on the following test days.

Cows that were shown to have fungal infection, developed MASTITIS in another quarter within 21 days or had a teat lesion were omitted from the study (n=17). Of the 164 cows remaining in the study, the treatment did not succeed in 41 (25%) and the treatment was therefore labelled as "fail".

The number of treatment failures was compared between treatment groups using the chi-square test. No statistically significant difference was detected between treatment groups.

Bacteriological cure could be shown in 78% of animals with treatment A and 76% of animals with treatment B. Both bacteriological cure and reduction of SCC were compared between treatment groups using Monte Carlo simulations. For the change in log geometric mean somatic cell counts the median (95% confidence interval) estimates was -0.41 (-0.63 to -0.018) for treatment Group A and -0.28 (-0.51 to -0.05) for treatment Group B. No difference could be shown between treatment groups regarding the parameters and no significant influence of the pathogen could be detected.

Under the current trial design, it was not possible to detect any statistically significant difference between treatment groups.