

Effects of chronic mastitis and its treatment with ketoprofen on the milk ejection curve

Alfonso Zecconi, Samuele Frosi, Micaela Cipolla & Claudia Gusmara

Dept. Veterinary Medicine- Università degli Studi di Milano

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*Correspondence: Alfonso Zecconi
Via Celoria 10, 20133
Milano, Italy
phone +39 02 503 18073
fax +39 02 503 18079

e-mail: alfonso.zecconi@unimi.it

Summary

This paper reports the results of a controlled study under field conditions aiming to analyse milk ejection curves in chronic cows, and to assess the influence of anti-inflammatory treatment with ketoprofen on milk ejection curves in these cows. Cows with chronic mastitis represent a peculiar group of animals posing several problems to dairy farmers and to veterinarians, but data on milk ejection curves in chronic cows and the effects of an anti-inflammatory treatment on these curves are not available. The study included 102 cows, 34 of them were classified as chronic and among these cows, 19 were treated with ketoprofen twice a week for 4 weeks, while 15 were left untreated. Milking data from 68 cows classified as healthy and milked in the same sessions as the chronic ones were also included. The results of this study confirm that chronic untreated cows produce less milk, have an overall lower milk flow and a lower milk yield after the first three samplings when compared both to treated chronic and healthy cows. A significantly higher frequency of bimodal curve was also observed in chronic untreated cows when compared with the other two groups. The treatment with ketoprofen had a positive effect on the main milking process, increasing average milk yield to values close to healthy cows. A similar pattern was also observed for the milk yield in the first three minutes with higher values in treated cows after three treatments. The positive results are also supported by the significant reduction in the frequency of bimodal curves.

To our knowledge, this is the first study showing as chronic mastitis has a significant effect on the milk ejection curve. Anti-inflammatory treatment with ketoprofen showed to be efficacious in reducing these negative effects, re-establishing a pattern close to the one observed in healthy cows.