



Evaluation of mastitis as a cause of lameness and digital lesions in dairy cows

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Lameness and mastitis beside infertility are major health concern and economic loss in dairy herds that affect animal health and reduce productivity and comfort of the cows.

Regards to occurrence of lameness after infectious and endotoxemic conditions and back to causative agents in mastitis and scattered reports, the main objective of this current study was establishing possible correlation between lameness and infectious conditions like mastitis.

This current study was done in a large dairy herd during a 9 month period. Cows were housed in loose housing system and fed by total mixed ratio. Mastitis recorded as a three point scale that in score one, milk clots in fore milking considered as the most important finding, in score two in addition to milk clots general conditions of inflammation was obvious in the udder but no general sings recorded and in score three in addition to the above findings cows express general illness including fever, anorexia. Hoof care and lameness management were done in the herd and in addition to hoof trimming by professional hoof trimmers and veterinary practitioner, hoof bathing, bedding management, heat stress control were done and data recorded.

Five hundred forty six cows affected with different mastitis scores were selected during 9 month started March 2014 - January 2015. Hoof lesions recorded up to three month after mastitis occurrence. The same number of cows selected randomly from negative mastitis cows as control group and all lameness data recorded in this group as well. Lameness compared between two groups and $P < 0.05$ considered as significant. Locomotion scores of the cows also recorded based on a five point scale monthly and compared from three month before mastitis till three month after mastitis.

Results showed that overall lameness were not different between groups ($P > 0.05$). New cases of noninfectious lameness were significantly higher in mastitis than control group ($P < 0.05$).

Sole ulcer, White line disease, toe ulcers were higher in mastitis group but didn't show significant difference with control group. In contrast digital dermatitis were significantly lower in mastitis group ($P < 0.05$).

It seems that mastitis can play a role in increasing incidence of noninfectious lameness. However since some causative factors in both conditions maybe the same, lameness and mastitis may be a result of a same causative agent that needs further study. Lower rate of digital dermatitis in mastitis group maybe a result of antibiotic treatment.

Incidence of hoof lesions in dairy farms in Iran

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