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Prevalence of subclinical streptococcal mastitis in dairy cows in Chaharmahal and Bakhtiari province

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Abstract

Mastitis is an inflammatory disease of the mammary gland, caused by many infectious agents such as bacteria, fungi, and viruses. Streptococci are reported to be among the major pathogens causing bovine mastitis around the world, which may cause clinical and subclinical forms of mastitis. Mastitis is one of the primary diseases of dairy cows and is responsible for remarkable economic losses due to reduction in quantity and quality of milk, cost of treatment, and the early culling of the cows. Considering the existence of substantial industrial and traditional dairy cattle farms in Chaharmahal and Bakhtiari province and the fact that mastitis is the most common disease in dairy industries, this study aimed to identify the role of streptococci in subclinical mastitis in dairy cows in Chaharmahal and Bakhtiari province. For this purpose,134 subclinical mastitis milk samples were collected from 8 dairy farms in Chaharmahal and Bakhtiari province, based on the california mastitis test (CMT) results and screened for the streptococcal cause of mastitis. DNAs were extracted from collected specimens and PCR was performed with specific primers for *Streptococcus agalactiae*, *Streptococcus uberis*, and *Streptococcus dysgalactiae*. Out of 134 mastitis milk samples 10 (7.5%), 14 (10.4%), and 5 (3.7%) samples were positive for *S. agalactiae*, *S. uberis*, and *S. dysgalactiae* respectively. The result of this research shows that 21.6 (29:134) percent of mastitis in dairy cattle farms in the studied region may be due to streptococci. The obtained data can be used in management and prevention strategies for cattle mastitis control in Chaharmahal and Bakhtiari province.

Key words: Mastitis, *Streptococcus*, Cattle, PCR, Chaharmahal and Bakhtiari

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