

## عنوان مقاله:

Characterization of single nucleotide polymorphism in the  $\delta'$ -untranslated region ( $\delta'$ -UTR) of Lactoferrin gene and its association with reproductive parameters and uterine infection in dairy cattle

## محل انتشار:

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## خلاصه مقاله:

Uterine infection is one of the reproductive diseases that can have disturbing postpartum uterine health in cattle. Therefore, identification of resistant genotypes to uterine infection is important. Lactoferrin (LF) is one of the major antimicrobial compounds in the normal uterine discharges of cows. We hypothesized that allelic diversity in LF gene may contribute to susceptibility or resistance to uterine infection. We investigated the single nucleotide polymorphism genes identified in the  $\delta'$  untranslated region ( $\delta'$ -UTR, position +332) of the LF gene using Allele-specific PCR method in cows with and without uterine infection. Blood samples were collected from 89 multiparous Holstein dairy cows with a history of uterine infection ( $n = 51$ ), and cows without disease as the control group ( $n = 38$ ). The results indicated the presence of different proportion of polymorphisms (G > C) in the  $\delta'$ -UTR area of cows in the all groups. The results of Allele specific PCR was in complete agreement with sequencing method. Statistical analysis did not show any statistically significant correlation between disease and SNP in  $\delta'$ -UTR. While, there was a significant difference in the mean of reproductive parameters of cows without polymorphism compare to those of with SNP in  $\delta'$ -UTR. Cows with +332:CC genotype and +332:GC genotype (cows with SNP in UTR) had lower average of services per conception and days open compared to cows with the +332:GG genotypes. However, no significant difference in the calving to first service was found between these genotypes. Further studies will be required to determine critical SNPs in LF gene .and status of the risk of uterine infection and embryo survival in cows

## کلمات کلیدی:

Lactoferrin, Polymorphism, Uterine infection, Dairy cow

## لینک ثابت مقاله در پایگاه سیویلیکا:

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