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Effect of hCG administration in different days after mating on reproductive performance and serum progesterone concentration of Torki-Ghashghaei ewes

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Abstract

In this study, the effects of different times of hCG injection were evaluated on reproductive performance and serum progesterone concentration of Torki-Ghashghaei ewes superovulated with eCG during the fall season. The estrus cycles of all ewes (N = 60, 2 or 3-year-old, mean body weight = 52±1.9 Kg) were synchronized by using progesterone sponges for a period of 12 days, and one day before the removal of sponges, 600 IU eCG were injected. The animals were divided into four groups according to not receiving (control) and receiving hCG on different days (1, 7 and 12 after estrus). The results indicated that there were not any significant differences in the number of delivered ewes and the rate of lambing among different groups, but the maximum amounts of those parameters were observed in the group receiving hCG on the seventh day. The fecundity difference among different treatment groups had tendency to significantly and this characteristic was higher in group receiving hCG on seventh day after mating, compared to other groups. The results showed that serum progesterone concentrations of pregnant, delivered, single and multiple-bearing ewes were significantly higher in hCG treated groups compared to control, but it was not any significantly difference among hCG treated groups. Overall, the results of this study indicated that hCG injection in different times after estrus increased serum progesterone concentration compared to control group and fecundity rate was higher in group receiving hCG on seventh day after mating, compared to other groups (P=0.07).

Key words: eCG, hCG, Multiple rates, Torki Ghashghaei ewes

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