

Effects of Different Treatments and Doses of Meloxicam After Insemination Pregnancy Rate at Dairy Heifers

SUMMARY

In this study, it was aimed to eliminating of negative effect following suppressing PGF₂ α and long-term inhibition of COX-2 enzymes by using of half dosage -non-steroidal anti-inflammatory drug meloxicam at 15 – 17th day of the cycle.

A total of 75 Holstein heifers aged between 15-16 months were used in the study. Natural PGF₂ α were injected to the heifers for oestrus synchronising. After injections, the heifers showed clinical oestrus behaviours were inseminated artificially. Animals were grouped as in 3 equal groups. The groups were meloxicam with single dossage (n=25), with two dossages (n=25) and control group (n=25), respectively. In the first study group, animals were received as single meloxicam injection 0.25 mg/kg at 15th day post insemination. In second group, they were received meloxicam injections 0,125 mg/kg at 15th and 16th days post insemination subcutaneously.

During pregnancy diagnosis examinations between 35 and 45 days after inseminations, pregnancies were recorded in 15 heifers in first study group, 16 heifers in second study group and 15 heifers in control group. Pregnancy rates in study groups were determined as 60%, 64% and 60%, respectively. No significant differences in pregnancy rate of groups were determined ($p > 0.05$). The mean blood P4 concentrations at 10th day were 3.32 ± 1.47 ng/ml, 3.20 ± 1.20 ng/ml and 3.53 ± 2.15 ng/ml in the animals of single dose-meloxicam, two dose-meloxicam and control groups, respectively. There was no statistical differences in the mean blood P4 concentrations at 10th day among the groups ($p > 0.05$). The mean blood serum P4 concentrations at 15th day were detected as 3.22 ± 1.40 ng/ml, 3.17 ± 1.71 ng/ml and 3.41 ± 2.09 ng/ml in the study groups, respectively and there was no statistical differences in the mean blood P4 concentrations ($p > 0,05$). At day of 20th, P4 concentrations of animals in each group were 2.80 ± 0.90 ng/ml, 3.10 ± 2.02 ng/ml and 3.41 ± 1.56 ng/ml and there was no statistical difference between mean P4 values of each group, however P4 concentrations in control group animals were higher than both meloxicam groups.

As a result, it was determined that both meloxicam applications on day 15 has no positive effects on pregnancy rates, and also possible non-significantly decreasing effects on the progesterone levels.