SUMMARY

The Effectiveness of Norgestomet and Prostoglandin Combined Treatment on Fertility in Dairy Cows with Subestrus

In this study, effectiveness of Crestar (ear implant that contains Norgestomet + PMSG) and Crestar-Plus (ear implant that contains Norgestomet + $PGF_2\alpha$ + PMSG) treatments on fertility parameters (oestrus detection rates, first service pregnancy rate and days to first service) in postpartum dairy cows with problem of subestrus were investigated. This study was performed on cows after 60 days postpartum (n=40) which have functional luteal structures in ovaries by two rectal examination 11 days apart without signs of oestrus. Cows were divided randomly into two groups. Cows in group I (n=20); subcutaneously norgestomet implants were administered into ears on day 0 combined with intramuscularly norgestomet and estradiol valerate injectable solution. Implants were removed on day 9 and 500 IU of PMSG were injected. Approximately 48-72 hours after the implants were removed double artificial inseminations were performed. Cows in group II (n=20); same applications were done as Group I and additionally 250 μg of cloprostenol were administrated intramuscullary on day 7. Approximately 56 hours after the implants were removed and artificial inseminations were performed.

Observations of oestrus signs were done two times in a day during 5 days after the hormonal administrations. Oestrus detection rates, days to first service and first service pregnancy were determined 35%, 52,80±3,67, 30% and 65%, 48,31±2,19, 45% for Group I and II, respectively. There were no statistically significant difference in any parametres between the two groups ($p>0.05$).

In conclusion, using additionaly $PGF_2\alpha$ with norgestomet treatment can cause higher rates of oestrus detection and first service pregnancy and low duration until the first oestrus

time without a statistical significance. However, further studies with high numbers of animals are need to be examined.

Key Words: estrus synchronization, norgestomet, subestrus, dairy cow