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Improvement of Reproductive Efficiency of Artificial Insemination Following Estrus Induction in Dog
I. Estrus Induction and Changes of Progesterone and Estrogen in Dog

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Considerable attention has been focused on the cryopreservation of semen and estrus induction in dog, as consequence of poor productivity caused by long anestrus period, in order to enhance the productivity of youngs and to preserve the breeds. The objectives of this study were to develop a treatment protocol for estrus induction.

Fifty infertilie dogs (age 2~3 years) were selected for the study and divided into three different estrus induction treatment groups. Group 1: dogs (n=15) were given clomifene (0.1 mg/kg) orally for five days at 12 hr intervals. Group 2: dogs (n=15) were given bromocriptine (50 μg/kg) orally for five days at 12 hr intervals, followed by single injection intravenously of 500 IU GnRH (Group 3, n=20) when pro-estrus occurred. After being treated, the dogs were evaluated for the rates of estrus induction and time interval lapses from treatment to beginning of the pro-estrus.

The estrus induction rates were significantly ($P<0.05$) higher in both group 2 (9/15, 73.3%) and group 3 (16/20, 80.0%) than that of group 1 (9/15, 60.0%), but did not differ in the groups 2 and 3. No differences were observed in the time interval lapses from treatment to beginning of the pro-estrus in group 2 (7.7 ± 1.2 days) and group 3 (6.9 ± 2.0 days), but significantly ($P<0.05$) shorter than that of group 1 (9.5 ± 2.1 days).

In conclusion, the estrus induction rate of dogs treated with a combination of GnRH and bromocriptine was more effective than use of clomifene or bromocriptine only.

Key words) ***Bromocriptine, Dog, Estrus induction, GnRH,***