

ESTRUS CONTROL IN GILTS WITH NORETHANDROLONE INJECTIONS AND AN ANALOGUE OF PROSTAGLANDINS (ICI 80996)

Françoise MARTINAT-BOTTE

*Station de Physiologie de la Reproduction,
Centre de Recherches de Tours, I. N. R. A.,
Nouzilly, 37380 Monnaie
I. T. P., 149 rue de Bercy,
75012 Paris*

The norethandrolone (17 α -ethylnortestosterone) controls efficiently the sexual cycle in gilts. A treatment of nine or eighteen injections (IM) (30 mg norethandrolone per injection each day) was begun at the different days of the estrous cycle (D₁ to D₁₉). A coelioscopic examination of the ovaries at nine or eighteen days after the first injection informs about the presence of corpus luteum or cystic follicles. Whatever the length of the treatment, no kystic follicle was observed during or after the progestagen administration.

An effective oestrus synchronization exists after a long term treatment (20/21 gilts in oestrus 5 days after the last injection). But with a short term period of injections, begun between D₁-D₅, oestrus are grouped between the 6th-8th days post-treatment in only 1/3 of gilts (7/21). The original corpus luteum remains fonctionnal at the end of progestagen treatment (D₉ to D₁₃). Two injections of 500 μ g of ICI 80996 have a luteolytic effect on this D₁₀ to D₁₄ corpus luteum (GUTHRIE & POLGE, 1973). A good synchronization was observed (14/15 gilts in oestrus between D₆-D₈ after the last progestagen injection). With a short term treatment begun between D₆ to D₁₉ of the oestrus cycle, oestrus synchronization is effective with or without prostaglandin injections (48/61 in oestrus during the same reference period). Fertility expressed in controlled presence of embryos at the 30th of pregnancy related to the treated animals was respectively : 9 days norethandrolone + ICI 80996 : 78 p. 100 (18/23) ; 9 days norethandrolone alone : 63.6 p. 100 (16/26) ; for the second treatment, the period D₁-D₅ of the oestrus cycle resulting in unsynchronised oestrus is not considered. With prostaglandin, the result is obtained whatever the first day of the treatment.

*Colloque : Control of sexual cycles in domestic animals
October 27-30, 1974, Nouzilly.*

ACKNOWLEDGMENT

We are indebted to Imperial Chemical Industries Ltd for the generous gift of the prostaglandin analogues and to Scarle France, Veterinary Department, for the generous supply of norethandrolone.

RÉSUMÉ

CONTRÔLE DE L'ESTRUS CHEZ LA TRUIE NULLIPARE
PAR INJECTIONS DE NORETHANDROLONE
ET D'UN ANALOGUE DES PROSTAGLANDINES (ICI 80996)

Chez la Truie, l'injection journalière de 30 mg de norethandrolone pendant 18 jours permet de grouper les oestrus 5 jours après l'arrêt du traitement.

Un traitement de 9 jours permet le groupage des oestrus, à condition que les injections commencent après le 5^e jour du cycle. On obtient la synchronisation des chaleurs et une fertilité de 78 p. 100 en associant 9 jours de norethandrolone et deux injections de 500 µg d'un analogue des prostaglandines.

REFERENCE

GUTHRIE, POLGE, 1973. Effect of an analogue of prostaglandin F_{2α} (ICI 79939) on luteal function of the pig during the oestrus cycle. *Soc. Study Fert., London (Abstr.)*, **25**.
