

OVARIAN FOLLICULAR DYNAMICS IN Gn-RH ANTAGONIST TREATED HEIFERS DURING THE PERIOVULATORY PERIOD
DINAMIKA FOLIKEL OVERI PADA SAPI TERPAPAR Gn-RH ANTAGONIS SELAMA PERIODE PERIOVOLATORI

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ABSTRACT

It is not clear wheter the turnover Of ovaries follicles during the perioovulatory period in Gn-RH treated heifers. This study was performed to test the hypothesis that an increased dosage of Gn-RH antagonist influences the follicular development.

Six normocyclic black pied heifers was divided into equally two control and treatment groups. The injection of Gn-RH antagonist Antarelix® (Europeptides, France) and vehicle (mannitol) were performed six times every 12 hours on the day -1, 0, 1 and 2, respectively. Ultrasound examination of the ovaries was carried out using B-mode scanner and performed every day beginning from day 0.

Result of the study suggest all animals showed sign of behavioral estrous beginning around 52 hours after induction of luteolysis. All control animals showed the development of a large (more than eight mm diameter) preovulatory follicle with maximum diametrs between 11 and 15 mm and thereafter ovulated. Two of there controls ovulated between days 1 and 2 and the remaining control heifer showed ovulation between days 2 and 3. Treated animals developed large follicles with maximum diameters between 12 and 17 mm but they did not ovulate. Concerning the number of small (one to less than four mm diameter) and medium (four to eight mm diameter) follicles there were no significantly differences found between control and treated animals. However, Antarelix® did not inhibit the development of all follicles. Antarelix® also did not inhibit the development of large follicles but inhibited ovulations.

Key words; Gn-RH antagonist treated heifers - perioovulatory period - large follicles-medium follicles-small follicles.