CORE
Metadata, citation and similar papers at core.ac.uk
Provided by Repository Open Access to Scientific Information from Embrapa

REF	PS2-053 (id 143)	Type	POSTER

Title

EFFECTS OF EQUINE CHORIONIC GONADOTROPHIN (eCG) ON CORPUS LUTEUM DEVELOPMENT AND PROGESTERONE CONCENTRATIONS IN NELORE COWS

Authors

Vicente W. Bergamaschi M.A.C.M. Vicente W.R.R. Barbosa R.T. Machado R. Baruselli P.S. Alencar M.M. Binelli M.

Institute

Faculdade de Ciências Agrárias e Veterinárias - Unesp. Jaboticabal, Brasil

Abstract

This trial aimed to test eCG as an enhancer of the luteal function, as well as to evaluate the ability of eCG to delay or prevent luteolysis mechanism. A group of 32 mature, synchronized (CRESTAR®), lactating Nelore (*Bos taurus indicus*) cows were randomly allotted to receive either 400 IU of eCG at implant withdrawal (GeCG; n=16) or remain as controls (GC; n=16). Ultrasound *per rectum* evaluation of ovaries was conducted daily, from implant removal up to the following ovulation (a complete estrous cycle). Simultaneously, blood samples were taken to determine plasmatic concentration of progesterone ([P4]). Data were analyzed by GLM of the SAS program.

GeCG showed non-significant (P>.05) higher volume of corpus luteum (CL) from day 3 after synchronized ovulation up to the rest of the luteal phase. In addition, eCG promoted a longer lasting growing period of the CL without changing its growing rate (P>.05) as compared to GC. As a result, Cl maximum volume was reached later (9.2 ± .47 days) and achieved a larger dimension (6927.5 ± 405.86 mm3) for GeCG than occurred for GC (respectively, 7.7 ± .47 days and 5437.8 ± 405.86 mm3).

The peak of [P4] was observed at the same time for both groups (11.3 ± .59 and 11.4 ± .59 days for GeCG and GC, respectively). However, maximum [P4] was higher (P<.05) for GeCG (8.2 ± .64 ng/mL) than Gc (6.4 ± .64 ng/mL). Luteolysis also took place at the same time (P>.05) for both groups (17.3 ± .45 to GeCG and 17.1 ± .45 days of the estrous cycle to GC). As a consequence, estrous cycle length did not differ (P>.05) between treated (21.8 ± .57 days) and non-treated cows (21.4 ± .57 days).

In summary, eCG not only increased CL dimension but also optimized [P4] over the luteal phase of the estrous cycle. Therefore, eCG given at implant removal provided a luteotrophic effect, but it was not capable to delay luteolysis.

PROCI-2006.00097
BER
2006
SP-2006.00097

Effects of equine chrionic
2006 SP-2006.00097
16454-1

Fundings Financial support: FAPESP (01/09277-8)

Comments

During the congress, this communication will be available as follows

Session N°	Poster session No 2	Date & Time viewing	Tuesday 17	10:15-11:00 //16:15-17:00
Panel	PANEL 053			