

287 EFFECT OF FOLLICULAR WAVE SYNCHRONIZATION AND ABSENCE OF CORPUS LUTEUM ON COC RECOVERY IN GYR (*BOS TAURUS INDICUS*) COWST. Miyauchi^A, C. A. C. Fernandes^A, E. R. Oliveira^B, B. F. L. Alves^B and J. H. M. Viana^C^A University of Alfenas, Alfenas, Minas Gerais, Brazil;^B Biotran, Alfenas, Minas Gerais, Brasil;^C Embrapa - Gado de Leite, Juiz de Fora, Minas Gerais, Brazil

Abstract

Transvaginal guided follicle aspiration (TGFA) is the main technique used in Brazil to recover oocytes for *in vitro* embryo production (IVP) in bovine. Different protocols have been proposed to synchronize follicular emergence in oocyte donors, but most of them were developed for use in European breeds of cattle, which show many differences in ovarian physiology when compared with Zebu breeds. The aim of this study was to compare different protocols for preparation of Gyr (dairy zebu breed) oocyte donors. The TGFA were performed in a donor management facility located in Minas Gerais State, southeast Brazil. Pluriparous cycling Gir cows ($n = 42$) were used as donors. All cows underwent 3 treatments: G1 (control), no treatment before TGFA; G2, 2 mg of estradiol benzoate (EB) for follicular wave synchronization given i.m. 5 days before TGFA; and G3, norgestomet auricular implants given 9 days and 2 mg of EB plus 0.53 mg of cloprostenol given 5 days before TGFA. The interval between TGFA in the same donor was greater than 30 days. All procedures were made by the same technician, using a portable ultrasound device, disposable 19G or 20G needles, and a vacuum pressure of 80 mm Hg. The aspirated follicular fluid was collected in 50-mL Falcon tubes and sent to the laboratory for COC identification and classification under 50 \times magnification. Recovered oocytes were classified according to cumulus cell layers and cytoplasm morphology. The total number of oocytes and viable COC recovered and the procedure length (min), including time spent for TGFA and laboratory manipulation, were compared. Data were evaluated by ANOVA, and means compared by Tukey's test. A total of 126 TGFA sessions were performed, with recovery of 2,809 oocytes (20.31 ± 12.32 of COC and 14.83 ± 7.97 of viable COC per cow/session; mean \pm SD). The total number of recovered oocytes and viable COC recovered were lower in G1 compared with G2 and G3 (15.18 ± 11.07 v. 21.18 ± 9.71 and 24.68 ± 9.03 ; and 9.53 ± 7.22 v. 16.97 ± 6.47 and 18.84 ± 8.90 , respectively; $P < 0.05$). There was no difference ($P > 0.05$) between G2 and G3 on the number of oocytes or viable COCs recovered. The procedure length, however, was longer in G1 and G2 compared with G3 (49.6 ± 15.1 and 46.9 ± 13.4 v. 35.8 ± 13.1 min, respectively; $P < 0.05$). The shorter procedure length in G3 was probably associated with the reduced number of cows showing no corpora lutea (38/42, 90%), which resulted in reduction of bleeding and clot formation in the aspirated fluid. These results show that (1) previous follicular wave synchronization by EB can improve the number and quality of recovered oocytes; (2) the absence of corpora lutea does not increase the number of recovered COC and viable COC, but reduces the time spent in the procedure.

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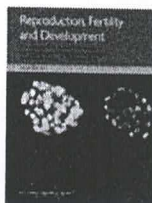
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