

INCREASED CONCEPTION RATE IN BOVINE EMBRYO RECIPIENTS WITH HIGHER PLASMATIC PROGESTERONE CONCENTRATION ON DAY OF EMBRYO TRANSFER

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The progesterone is a fundamental factor in pregnancy establishment and embryo development. However, the effect of plasmatic progesterone levels in the conception of bovine female is still controversial. The aim of this retrospective study was to verify the effect of plasmatic progesterone concentration on day seven of oestrous cycle in the conception rate of bovine embryo recipients (*Bos indicus x Bos taurus*). Five hundred forty two embryo transfers were analyzed in four replicates. The animals were submitted to ovulation synchronization protocols without estrus detection, excepted by one replicate that was performed a PGF2 α treatment and subsequent estrus detection. The ovarian ultrasonography were performed in all animals seven days after estrus. Females that presented a CL > 15mm were bled by venopuncture for plasmatic progesterone dosage by RIA. The animals were divided in five groups according to plasmatic progesterone concentration (**G0**: 0 to 0.99; **G1**: 1.00 to 1.99; **G2**: 2 to 2.99; **G3**: 3 to 3.99; **G4**: \geq 4.00 ng/ml). Conception rates were analyzed by qui-square. No interaction was observed between groups and replicates. The conception rate of each replicate was 50.0% (111/222), 48.7% (79/154), 43.7% (55/126) and 30.0% (12/40). The conception rate according plasmatic progesterone concentration was 39.2% (40/102)^a for **G1**, 44.6% (70/157)^{ab} for **G2**, 46.0% (52/113)^{ab} for **G3**, 55.7% (34/61)^b for **G4** and 52.3% (57/109)^b for **G4** (P<0.05). The results indicated a positive effect of increase in the plasmatic progesterone concentration on day 7 of oestrous cycle in the conception rate of bovine embryo recipients. Strategies to increase the plasmatic progesterone concentration may be useful to improve reproductive efficiency of embryo transfer programs.