## P 41 | Use of hCG on the induction of accessory corpora lutea in Morada Nova ewes

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The objective of this study was to evaluate if the use of hCG seven days after the synchronized estrus will induce the formation of accessory corpora lutea in Morada Nova ewes. For this, 115 multiparous Morada Nova ewes were used (mean weight of 36.6 kg and body condition score of 3.13, scale from 1 to 5). Estrus was synchronized with intravaginal sponge impregnated in medroxyprogesterone acetate (60 mg, Progespon®, Zoetis, USA) for six days and eCG (200 UI, i.m. Novormon®, Zoetis, USA) plus $PGF_{2\alpha}$ analog (0.0375 mg, D-Cloprostenol, i.m., Vetglan®, Hertape Calier, Spain), both administered 24 h before the sponge removal. Seven days after the synchronized estrus, hCG (300 IU, i.m., Vetecor®, Hertape Calier, Spain; n = 57) or physiological solution (1 ml, i.m., 0.9% NaCl, Eurofarma Lab SA, Brazil; n = 58), were injected. B-mode ultrasound examinations of the ovaries were performed on Day 7 (corresponding to the day of hCG or physiological solution administrations), and six days later (Day 13), in order to quantify the corpora lutea present. Data were analyzed by ANOVA with Turkey's post hoc test (mean ± SEM; $p < 0.05$) using SAS software. The number of corpora lutea on Day 7 was similar ($p > 0.05$) between the hCG and control groups (1.58 ± 0.09 vs. 1.57 ± 0.08), respectively. However, on Day 13, the number of corpora lutea was higher ($p < 0.05$) in the hCG group (2.65 ± 0.13) than in the control group (1.69 ± 0.07). In conclusion, the use of 300 IU of hCG seven days after synchronized estrus in Morada Nova ewes is efficient in inducing the formation of accessory corpora lutea, as demonstrated by the increase in the number of corpora lutea. (Financial support: CNPq and EMBRAPA (process nº 02.13.06.026.00.02).).

## P 42 | A single injection of triptorelin or of buserelin acetate in saline solutions induce ovulation in mares as a single injection of hCG

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In the 1980's, it was concluded that a single injection of GnRH or its agonists was not able to induce ovulation of preovulatory follicles in mares. Subcutaneous implants releasing deslorelin during 48 h and injection of deslorelin in long acting base are commercially available and are widely used around the world to induce ovulation in mares. Recent studies showed that a single subcutaneous injection of large dose (6 or 3 mg) of buserelin acetate in saline solution is able to induce ovulation. To inject this dose, it is necessary to use a human drug (Suprefact®), but its production is definitively stopped. The aim of this study was to test another analog of GnRH, triptorelin. A total of 737 oestrus of donor and recipient mares were checked. A control group included 114 oestrus without treatment (spontaneous ovulations). In 5 other groups mares in oestrus having a growing follicle with a diameter of 35 mm were injected either intravenously with hCG (1,500 iu) (Gh n = 145), subcutaneously with triptorelin (0.1 mg) (Gt n = 96) or with buserelin acetate at 3 different doses 1 mg (Gb1 n = 67), 2 mg (Gb2 n = 141) or 3 mg (Gb3 n = 174). Size of follicle before ovulation was significantly higher ($p < 0.01$) in the control group than in the 5 treated groups, showing that all treatments induced ovulation. Rates of ovulation occurring during 48 h after injection (Gh 95%, Gb1 97%, Gb2 97%, Gb3 93% and Gt 95%) and between 24 and 48 h after injection (Gh 87%, Gb1 87%, Gb2 83%, Gb3 85% and Gt 85%) were not significantly different among the 5 treated groups. From a practical point of view triptorelin commercially available on human drug (Decapeptyl®) can be use in place of Suprefact® with same efficacy to induce ovulation.

## P 43 | The effect of Hydrostatic Pressure Treatment (HHP) on quality of poor boar ejaculates after cryopreservation

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The aim of this study was to evaluate the effect of HHP treatment (Applied Cell Technology, Hungary) of poor quality of fresh boar ejaculates, in which progressive motility (PM%) were 55.3 ± 3.8%. The sperm-rich ejaculates fractions collected from 5 boars (n = 20) were used in the experiment. Before freezing ejaculates were split: I (control without HHP treatment); II, III and IV were treated with 30 MPa, 35 MPa and 40 MPa for 1.5 h at 21°C, respectively. Cryopreservation procedure was carried out as previously described (Trzcińska et al. 2015, Theriogenology 83:307-13). The quality of cryopreserved semen were verified by PM % (CASA); viable sperm with intact acrosome (PNA-/PI-) and live sperm without translocation of phosphatidylserine (AnV-/PI-) analyzed by flow cytometer. Data were analyzed by Duncan's test ($p \leq 0.05$). The results showed all treated groups (II, III, IV) differ significantly with control (47.6 ± 3.5; 50.8 ± 1.7; 46.9 ± 2.6 vs. 35.2 ± 2.1) in post-thaw motility and in % of PNA-/PI- sperm (43.2 ± 2.6; 48.3 ± 4.1; 42.5 ± 3.2 vs. 34.1 ± 3.5). No differences in % of AnV-/PI- sperm in experimental groups were observed. The highest % of AnV-/PI- freeze-thawed sperm (48.2 ± 1.7) was noticed in group treated with 35 MPa before cryopreservation. Study demonstrates that using HHP treatment before cryopreservation of poor quality boar semen increased cryotolerance of sperm during freezing and provided high sperm viability after thawing. (Financial support: BIOSTRATEG 2 No. 297267/14/2016.)