

Abstract P197**Two Cases of Chromosomal Translocation in Piglets Produced by ICSI**

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ART, including IVF and ICSI, has contributed to a great improvement of reproduction in several mammalian species. However, previous chromosome studies have cast some doubt as to whether there is a potential risk of generating chromosome damage using the ICSI technique, because incidences of structural chromosome aberrations in embryos produced by ICSI were considerably high compared to those in embryos produced by conventional IVF technique (Tateno et al. 2007). The karyotypes of 9 piglets from three different litters produced by ICSI were analyzed. Blood samples were recovered from 3 months old piglets and cultured during 72 h at 37°C in RPMI medium and stimulated with concanavalin A. To obtain the cellular material colcemid were added to the culture and maintained for 1 h at 37°C for arresting cells in metaphase. Slides were treated with Trypsin and stained with Giemsa solution to generate GTG-banding. The images were captured at 1000× and processed by *MetaSystem*® software. At least 10 metaphasic plates per animal were examined. Two cases of reciprocal translocation (2q-; 8q+) (7q-; 4p+) were detected in two animals. These chromosome abnormalities are associated with the production of altered gametes and reproductive problems in offspring. In a normal population the prevalence of structural chromosomal rearrangements amounted to 0.47% (Ducos et al. 2007). In human abnormal fetal karyotypes were found in 3% of tested ICSI fetuses (Bonduelle et al. 2002). (10BIO2005/01-6463)

Abstract P199**Effects of Storage and Commercial Semen Extenders on Sperm Motility Characteristics in Cooled Semen of Duroc and Iberian Pigs**

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The artificial insemination technology in Iberian pigs is currently increasing in Extremadura but little research has been conducted on commercial extenders for the semen of this breed. Our aim was to evaluate the effect of two semen extenders, MRA® and XCELL®, as well as the storage time at 17 degrees centigrade (1, 4, and 7 days) on motility parameters and percentage of hyperactivated and static spermatozoa measured by a CASA system in commercially produced semen of 6 Duroc (n = 42 doses) and 6 Iberian pigs (n = 48 doses). ANOVA and Pearson's chi-square tests were used for the statistical analysis. The motility parameters VAP (average path velocity), VCL (curvilinear velocity) and VSL (straight-line velocity) were most affected by extenders (higher values in XCELL during the same storage time), storage (no statistical difference between 4 and 7 days) and breed (higher values in Iberian pigs). XCELL extender resulted in a higher percentage of hyperactivated spermatozoa (7.5% vs 4.7%, p < 0.001) and a lower number of static spermatozoa (10.8% vs 15.6%, p < 0.001). There was a marked effect of the extender on the percentage of static spermatozoa on day 7 of storage (MRA 22.5%, XCELL 13.6%; p < 0.001). XCELL preserved sperm motility better than MRA when cooled boar semen was stored up to 7 days. (Supported by CDTI I-2008-0698)

Abstract P201**Placental Characteristics in Belgian Draught and Warmblood Horses**

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Weighing the equine placenta is a routine way to estimate possible inflammation and to assess foal viability. Therefore knowledge of normal placental weights in different breeds is essential. Placental weights of 51 Belgian Draught mares (BDH) and 117 Warmblood horses (WB) were measured. Only mares with an uncompromised pregnancy and peri-parturient period and with normal placental thickness on ultrasound examination were considered. Average values and standard deviations were calculated and Pearson correlations were analysed. On average the foals weighed 72.6 kg (SD 9.6) and the placenta's 5.7 kg (SD 1.1) in the BDH and 55.8 kg (SD 8.4) and 5.6 kg (SD 1.4) in the WB. Placental weight as percentage to the foal's weight was 8.1% (SD 1.6) for BDH and 10.06% (SD 2.2) for WB. Positive correlations were found between parity and weight of the foal in BDH (0.331, p = 0.010, n = 18) and in WB (0.223, p = 0.008, n = 117) and between parity and the placental weight in BDH (0.479, p = 0.022, n = 49) and in WB (0.263, p = 0.003, n = 107). The data of the BDH population shown in this study are in contrast with those found WB and in most other breeds. Possible explanations might be the limited data, inaccuracy in measurements, breed differences in foetal activity, placental efficiency, micro cotyledon surface density and inbreed ratio. Further research to test those hypotheses is in progress.

Abstract P203**Effects of Reducing Interval from GnRH to PGF2α in Ovsynch Protocol on Pregnancy Rate in Cyclic Lactating Dairy Cows**

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The aim of this study was to compare pregnancy rates (PR) in Ovsynch vs Modified Ovsynch (interval between first GnRH to PGF2α decreased to 6 d) in cycling lactating dairy cows. This study was conducted on one commercial dairy herd (800 lactating dairy cows) located in Turkey. The day of first GnRH of Ovsynch was designated day 0. The ovaries of cows were examined by ultrasonography twice, 1 week apart, to determine cyclic cows (had CL on either ovary) from -7 to 0 days. Cyclic cows (n = 480) were divided into 2 groups: Controls (n = 250) received an Ovsynch protocol (GnRH-7d-PGF2α-56h-GnRH-18h-AI) and treated cows (n = 230) had a Modified Ovsynch (MOV) protocol (GnRH-6d-PGF2α-56h-GnRH-18h-AI). Ultrasonography was performed at each injection, at AI and 7 d after AI to determine ovulation. Pregnancy diagnosis was performed 30 days post-AI by ultrasonography. After first GnRH, ovulation rate was similar between Ovsynch (54%, 135/250) and MOV (61%, 140/230) groups. Synchronization rate (ovulatory response to second GnRH injection) was higher (p < 0.05) in MOV (211/230, 92%) than Ovsynch (214/250, 86%). PR were similar in Ovsynch (51%, 109/214; 44%, 109/250) and MOV cows (44%, 93/211; 40%, 93/230) in synchronized and all cows, respectively. Follicle size at AI was greater (p < 0.03) in Ovsynch (16.1 ± 0.15 mm) than MOV (15.6 ± 0.16 mm). Thus, Modified Ovsynch protocol increased synchronization rate but did not improve pregnancy rate in cycling dairy cows. (This study is supported by Turkish Academy of Science (TUBITAK, TOVAG 1070227))