



A186 Physiology of reproduction in male and semen technology

Comparison of different surgical procedures to prepare teaser boars

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Besides the production, the swine industry is now facing an important pressure from the consumers to develop better systems to address the animal welfare issues and the use of antibiotic. The use of collective gestational pens by the European Union, have forced producers from different parts of the world, to adapt and to implement to their system. The heat detection procedure also needs some adaptations, since females are moving from individual crates to collective pens during the detection procedure. Therefore, the use of teaser boars could be an alternative to avoid the undesired pregnancy, and facilitating the heat detection procedure in collective pens. Therefore, the objective of this study was to evaluate different surgical procedures to produce boar teasers. For that, 39 male pigs (30-35kg) were used, (9-10 per technique). Animals were kept for 12 hours prior the surgery without food and water. Animals were sedated with tiletamine hydrochloride and zolazepam hydrochloride (Zoletil 50® - 5mg/Kg/IM); azaperone (Strenil® - 2mg/ kg/ IM) and local anesthesia was conducted at the incision line with lidocaine without vasoconstrictor (1,5 mg/Kg). The surgical procedures were: Vasectomized animal via the inguinal access (VI): Removing 2cm of the deferent duct between the last pair of teats. Tail-epididymectomy (CE): removal of the bilateral part of the epididymis tail, using the ventral access of scrotal sac. Vasectomized animal via scrotal access (VE): removal of 2 cm in the funicular portion of the deferent duct using a caudal access of the scrotal sac. To evaluate the surgical procedures, cortisol levels were measured 48hrs after the procedures using radioimmunoassay, and at seven months of age a complete Breeding Soundness Examination test was conducted, including (testicular volume, and testosterone levels measurements). Data were analyzed using PROC MIXED (SAS®) with comparisons using a Tukey test, significance was considered if (p<0.05). During the Breeding Soundness Examination, no changes or reduction of libido was identified due to the surgical procedures. Only one animal from the VE group had spermiation. No differences were observed among the procedures and the control group. The cortisol concentrations were 3.29 ± 0.47 µg/dl (VI); 3.23 ± 0.47 µg/dl (CE); 3.48 ± 0.27 µg/dl (VE) and 3.29 ± 0.51 µg/dl (cont.) (p=0.98), testosterone levels 6.25 ± 1.92 ng/dl (VI), 5.92 ± 1.74 ng/dl (CE); 6.14 ± 1.82 ng/dl (VE) and 5.29 ± 2.02 ng/dl (cont.) (p= 0.98) and testicular volume 343.52 ± 35.29 cm³(VI); 463.05 ± 33.65 cm³(CE); 422.76 ± 35.29 cm³(VE) and 423.70 ± 37.20 cm³(cont.) (p=0.12). All the surgical procedures could be used to produce a teaser boar, since they have produced low levels of stress and have not caused any negative effect on the libido and the testosterone levels to the animals.