

Technical Note

Penile Translocation for Teaser Boar Preparation

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INTRODUCTION

Various different methods are used to detect estrus. Regular observation by skilled personnel is important to determine changes in the estrus females, using methods that include females and androgenized castrated males, methods based on electric devices, and massive application of estrus synchronization programs in artificial insemination projects including herds, as well as surgical preparation of whole males to be used as teasers (Reyes, 2007). This last method is undergoing changes that include more updated technology, though they are not always available to cattle farmers in areas with little resources. In that case, it is important to identify the advantages provided by teasers, as an ecological way to deal with herds. Boars are natural sow estrus inducers. Thanks to the so called "*macho effect*", the female is stimulated with the combination of various sensitive ways. Not only through the olfactory way, by pheromones, urine, and other secretions, but also through vision, by presenting the male; hearing, by playing sounds; and touch, by rubbing. To prevent mounting in swine, the difference in preparation methods with teasers ensures efficient estrus detection, and the "*macho effect*" can be properly used. Hence, the goal of this paper was to describe the method of penile translocation in boars.

DEVELOPMENT

Surgical procedures to ready teaser boars

Pre-operative

The preoperative stage included a water-based diet, for at least 24 h before intervention, according to Fubini and Trent (2005). The medication dosage was determined according to the body weight, through thoracic measurement suggested by López (2009).

Animal preparation

Animal immobilization was made on the lateral decubitus; the preputial diverticulum was emptied and washed with a 2% iodine solution. The preputial area was also disinfected.

Preparation of the incision site

The incision site was shaved and the preputial hair was cut as short as possible, to eliminate rests of urine, sperm, smegma, or other contaminants. The prepuce and the transplantation site were disinfected with alcohol-based iodine; it was carefully cleaned from the manipulation site outward. The site remained untouched to ensure proper antisepsis.

Immobilization and anesthesia

To immobilize the patients, Estresnil® (Azaperone) manufactured by ECUPHAR, 2 mg/kg of body weight was used, according to Tendillo, de Segura, De Miguel, and Castillo-Olivares (1991). Local anesthetic was administered by linear infiltration with 0.25% lidocaine.

Pre-operative phase

First, an approximately 3 cm circular cut was made around the prepuce with a scalpel, starting at the preputial opening ring, followed by an incision from the posterior ring of the previously marked circle, to approximately the upper part of the last nipple. Blunt dissection was made using curved Mayo scissors. After separating the penis and pod from the prepuce, they were held with the tip of hemostatic pincers, and the right lateral, that was used as a guide to dissect the area where the organ was fixed. Then the incision was temporarily closed, using Backhaus pincers, trying to avoid excessive manipulation of the skin, and tissue exposure. A 6 cm diameter circle was made on the site where the prepuce would be implanted,

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and the already anesthetized skin within the circle was removed. Then a tunnel was cut open with blunt dissection of the skin and the subcutaneous tissue, to the end of the previously made wound.

Then, the prepuce was held with long pincers, and it was moved throughout the tunnel to the implant site. The prepuce was fixed to the new site with four (4) simple stitches, making up a cross to secure its definitive position.

Post-operative phase

It began right after stitching, with the administration of intramuscular penicillin (10 000-25 000 IU/kg) of body mass, according to Pérez (2001). Antiseptic medication was applied to stimulate wound healing (Plastubol® and micronized aluminum), along with insect repellent. Local cures were performed, until total patient recovery was achieved. The operating room was aerated and disinfected.

The animals readied for this technique recovered between 8-10 days after the operation. Turner and McIlwraith (1988), in bulls with penile translocation, using the "Rommel method", recommended administration of antibiotics at the surgeon's will, and stitch removal after the tenth day. However, in this procedure, the inner alternate stitches were removed at 7-8 days.

After the post-operative phase, all the animals spent another 10 resting days to ensure full recovery, and prevent possible injuries during the teasing period.

In that time, routine controls related to animal behavior were made; micturition was closely observed to check discomforts (Fig. 1), and the presence of pain or other processes that could risk teasing in the herd.

It is important to evaluate the operated boar's capacity to penetrate the female, based on the importance of estrus detectors, which are not allowed to copulate for the sanitary advantages it brings.

The operation was not considered successful when the boars were able to mate. In other words, when that capacity was not removed and the boars could fertilize and transmit disease.

Evaluation of the copulating capacity of the operated boars revealed that 100% was disabled. It was closely linked to proper operation procedures, since the penis was implanted 45° or more from its natural position. These animals are unable to copulate (Fig. 2).

CONCLUSION.

These procedures are very reliable when it comes to disabling copulation, fertilization and transmission of diseases, three expected benefits regarding teaser preparation.

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Received: 7-12-2017

Accepted: 7-12-2017



Fig.1.



Fig. 2. Boar unable to copulate