

Castration in Piglet

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SUMMARY

Castration in pigs is primarily performed to prevent the boar taint present in the meat of some entire males once they reach puberty. A combination of anesthesia and analgesia must be used with surgical castration to alleviate the pain and stress caused by this procedure. Consideration must likewise be given to alternatives, such as rearing entire males or immunocastration.

INTRODUCTION

Castration in males consists of the removal of the testes or the inhibition of testicular function. Although the prevalence of castration in pigs varies from country to country, it is generally a routine practice that is performed surgically with anesthesia in the first week of a piglet's life. The main purpose of castration in pigs is to prevent boar taint, which is present in the meat of some entire males once they reach puberty. Other benefits of castration include: preventing unwanted reproduction in extensive systems, reducing aggressive and mounting behavior with their resulting injuries, and the possibility of producing a higher quality end-product.

What is Castration

Castration, or the removal of the testicles, is carried out on the male pig which is not needed for breeding.

Methods of Castration in Pig

There are two methods of castrating male piglets: surgical castration and immunocastration.

Surgical Castration- We will need someone to hold the piglet for castration. The pig should be held by the hind legs with its head down and its body should be firmly held between the handler's knees. We will need a very sharp, clean knife, scalpel or razor blade. Remove the sow from the litter and if possible put her where she cannot see or hear them.

- Clean the scrotum with warm water and soap and dry it.
- Move the testicle into the scrotum with your finger and then firmly grip the scrotum below the testicle between your thumb and index finger.
- Make a cut 1 - 2 cm long in the bottom of the scrotum. The testicle should pop out through the cut.
- Pull the testicle out of the scrotum and cut through the white cord leaving the red blood vessel uncut.
- Pull the testicle out slightly further and twist it around several times before cutting the twisted blood vessel by scraping up and down with the knife. This helps to reduce bleeding. Do not pull to break the vessel.
- Do not put your fingers in the scrotum. Apply either tincture of iodine, gentian violet, Dettol or an antibiotic powder or a sulpha powder to the castration wound. Remove the second testicle in the same way.
- Put the piglets and their mother on clean bedding. Watch piglets for signs of infection in the wound for the next week. Infected castration wounds swell; piglets do not want to walk or are lame.

Steps of Castration



Fig. 1. Preparation of site.

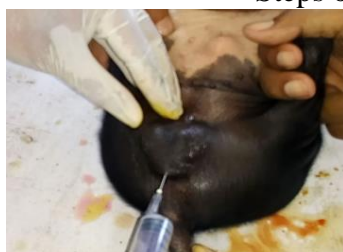


Fig. 2. Application of Anesthesia

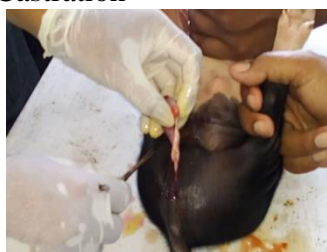


Fig. 3. Removal of testicles and control of bleeding.



Fig. 4. Dressing of wound

Immunocastration

Immunocastration involves injection of a protein compound that works like an immunization to induce antibody production against gonadotropin releasing hormone (GnRH). The process requires two injections: the first 8 to 11 weeks prior to slaughter and the second 4 weeks prior to slaughter. Immunocastration results in decreased production of gonadal steroids (testosterone and androstenone) with an associated increase in metabolism of skatole.⁷ accordingly; there is a reduction in boar taint. Immunocastration is a temporary form of castration. Currently there is one product on the market that can be used for immunocastration of male pigs; Improvestis an FDA-approved veterinary prescription product in the United States. This product is also labeled as Improvac™, a global brand that is approved for use in more than 60 other countries. Immunocastration is effective at reducing sexual and aggressive behaviors in male pigs viz mounting, (Rydhmer L 2010), (Brewster V2013), (Fabrega E2010) knocking, (Brewster V2013), and fighting (Brewster V2013), during the period the pig is immunocastrated.

Why are Pig Castrated?

Male pigs (boars) can fight causing injury to one another. Castrated pigs are quieter and easier to handle. Castrating the pig makes it put on more fat and the meat does not have a strong piggy smell. Young pigs should be castrated at 2 to 3 weeks of age.

Mitigating the Pain and Stress of Castration

Where surgical castration cannot be avoided' (Prunier et al., 2005), the pain and stress experienced during surgical castration can be minimised through the use of analgesics and local or general anaesthetics (EFSA, 2004; Prunier et al., 2005; Prunier et al., 2006). However, the added cost and time associated with administration means these options are rarely considered (Fredriksen *et al.*, 2009). (Haga and Ranheim, 2005). Leidig *et al* (2009) found that procaine reduced the stress response to castration, but not completely, suggesting that local anaesthetics should be used in combination with analgesics to gain maximal effect. The analgesics meloxicam and flunixin have both been shown to reduce the behavioural and physiological indicators of pain and stress when applied pre-operatively (Langhoff *et al.*, 2009; Keita *et al.*, 2010). Analgesics can therefore mitigate some of the post-operative effects of castration, but only for a limited time and prolonged analgesic treatment should be sought (Prunier *et al.*, 2005).

Advantage and Disadvantage of Castration in Piglet

Advantages of castrate the piglet reduction of boar taint in slaughtered meat. Allows optimization of space by concentrating several male pigs in the same pen. Males that aren't castrated can't easily exist in the same pen. Disadvantages of castration include headaches, high-pitched voice, lessened creativity, lowered bravery, fatigue, leg cramps, and cerebrovascular disorders, among others. the author also discusses the use of castration as punishment.

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