

CASTRATION PROCEDURE

Pre-surgical Considerations

- Ensure calf has BOTH testicles descended in the scrotum and that the animal is neither a bilateral or unilateral cryptorchid.
- Combination of Xylazine @ 0.05 mg/kg and Ketamine @ 0.1 mg/kg was given I.M for anesthesia and Flunixin @ 1.1mg/kg was given for analgesia.
- 3mls of 2% Lidocaine was injected directly into the spermatic cord at the most possible proximal part of each teste and an additional 2mls was placed S.C around the spermatic cord for local anesthetic effects Wait 10 minutes for effect.
- The scrotum and surrounding skin of the medial aspect of the thigh was cleaned properly with an antiseptic solution before incision.

Surgical Technique

1. Test the effectiveness of the local block by using the hemostat forceps to clamp the skin on the most distal part of the scrotum. No reaction is a positive sign the block has worked. Signs of a pain reaction may indicate not enough time has elapsed or the block was done incorrectly and may need to be repeated.
2. Grasp the distal 1/3 of the scrotum thus displacing both testicles the the proximal 2/3 of the scrotum . Use a scalpel blade to remove the skin of the distal 1/3 to expose the testes . Some skin bleeding is expected at this time.
3. Grasp one of the testics individually and use light traction to separate it from the surrounding fascia .
4. **At this point the surgeon must decide if he is doing an Open-Open castration or an Open- Closed castration. If Open-Open proceed to step 5. If Open-Closed move onto step 6.**

5. For Open-Open method , incise the common vaginal tunic over the testicle and concentrate traction on the testicle until the spermatic vessels are isolated
6. Use hemostat forceps to clamp the spermatic cord about 5cm above the site the emasculator will be placed. Approximately 2 cm above the hemostat forceps use 2-0 Vicryl to perform a strangle knot. This is intended for extra insurance to control haemorrhage (C.Y.A) .
7. Place the emasculator at the designated site in its correction orientation (nut to nut) and ensure proper position before moving forward.
8. Use the emasculator and clamp down on the spermatic cord to cut distally and crush proximally . Hold the emasculator in place for approximately 1 minute.
9. Remove the emasculator and recheck the crush site it ensure there is no bleeding before replacing it into the body cavity .
10. Steps 4-9 are repeated to excise the remaining testicle

Post Surgical Considerations

- After ensuring both spermatic cord remnants are replaced into the body with the absence of bleeding the scrotum and medial aspect of the thigh is then re-washed with antiseptic solution to remove any blood acquired during castration.
- Use a clean, dry gauze to dry off the area and remove any clots of blood .
- Very generously apply Tetravet aerosol spray to the surgical area and surroundings.

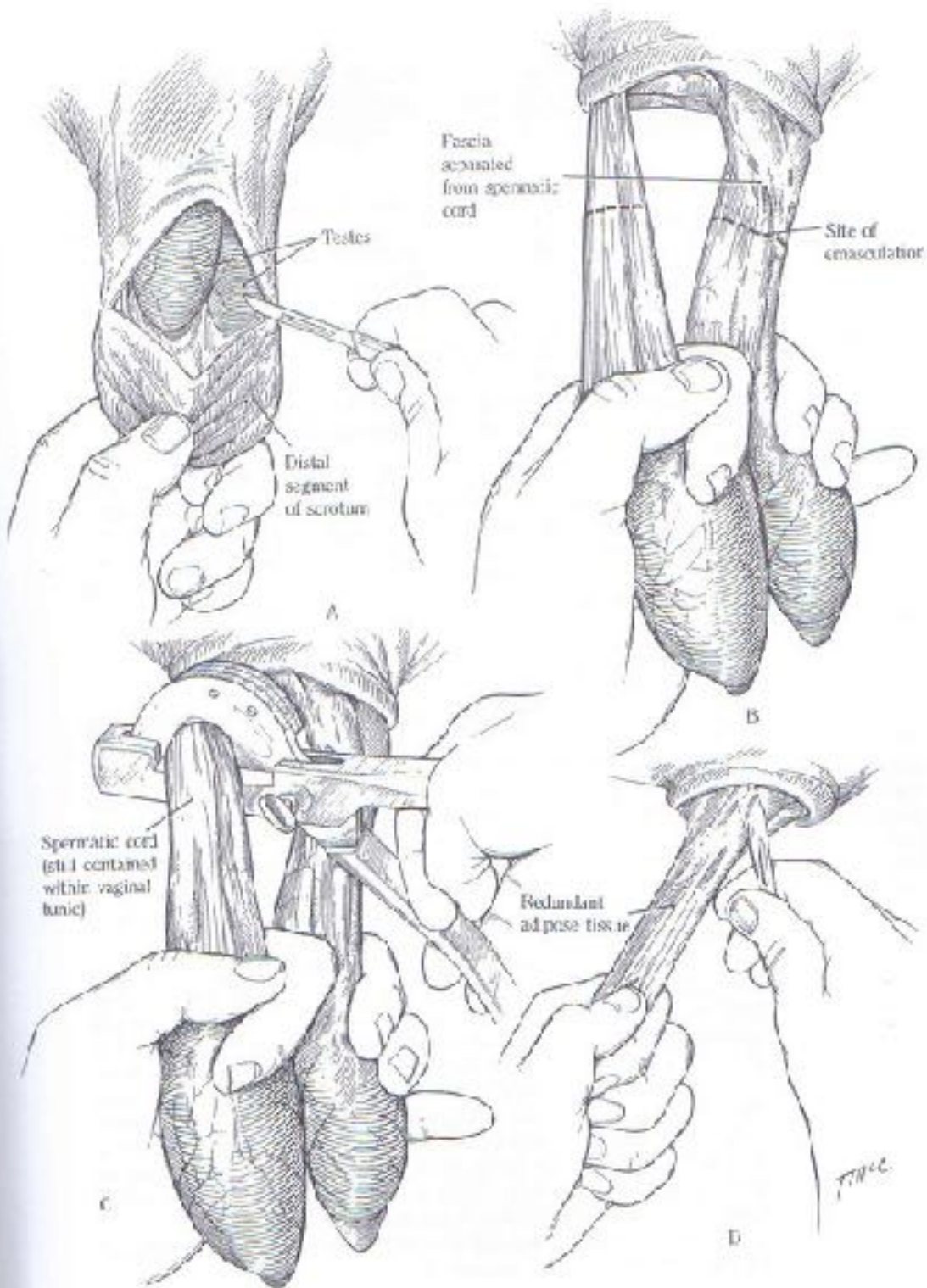


FIG. 14-1. A to D, Calf castration.

Diagrammatic representation of the steps included for Open-Closed Castration

Surgical Considerations of the Porcine Animal

Piglets and Young Boars

Presurgical Procedures

- Restrain piglets with a body weight of less than 20 kg (45 lb) by holding the rear limbs with the body in a vertical (head-down) position.
- Commonly, no anesthesia is required/used for piglets and young boars.
- The incision length should be adequate for easy removal of the testicle. If the length is less than optimal, blood and serum will not drain properly but will instead pocket.

Surgical Technique

- Make a single ventral scrotal incision on the midline (preferred) or a ventral incision over each testicle (two incision technique).
- Express each testicle through the fascial and skin incision, preferably with common vaginal tunic intact; however, complete removal of the tunics in piglets is not required.
- Grasp the testicle and, while you apply traction, transect the spermatic cord close to the inguinal region.
- A rough cut by scraping the spermatic cord with a scalpel until divided will aid hemostasis.

Mature Boars

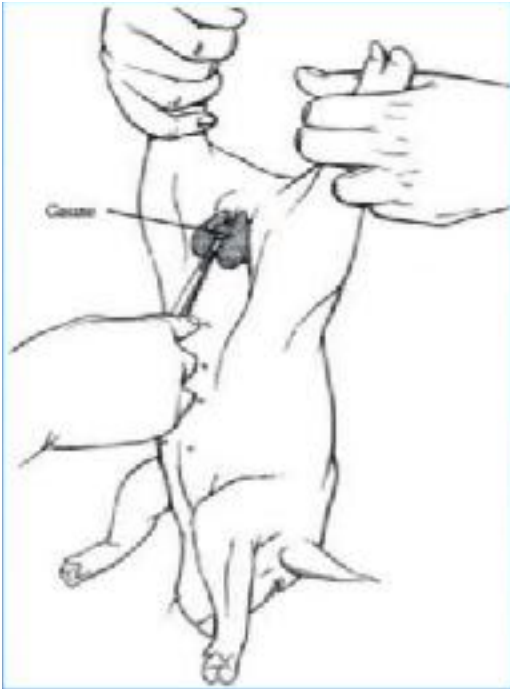
Presurgical Procedures

- General anesthesia should be considered for the safety of the surgeon and for clear animal welfare reasons
- Lumbosacral epidural anesthesia and other restraints may also be considered.
- Standing restraint with a hog holder, limited side-to-side movement, should be considered

Surgical Technique

- Make a ventral incision over each testicle. In boars weighing 135 kg (300 lb) or more, remove the medial septal skin after removing the testicles.
- Bluntly dissect (with your finger) to isolate the spermatic cord just cranial to the testicle.
- With traction and manipulation, free the testicle (with intact common vaginal tunics) from the scrotum.

- Grasp the testicle within the common tunics, and apply traction to isolate the spermatic cord and to stretch it taut.
- Apply one or two ligatures on the spermatic cord to control hemorrhage.
- Use an emasculator near the inguinal region, distal to the ligatures, and transect the spermatic cord.
- Keep the emasculator in position for a short time (i.e., 30 seconds) to aid hemostasis.



Visual representation of the physical restraint and surgical method used for piglet castration