



EQUINE CASTRATION

CLOSED TECHNIQUE



Procedure- Scrotal Closed Castration

Different from scrotal open castration in that the vaginal tunic is not incised.

Blunt dissection of the tunica dartos and subcutaneous tissues is usually done with a dry swab.

The proper ligament of the testis is broken for correct exteriorization of the testicle.

Avoid excessive trauma to the cremaster muscle during dissection, this may cause excessive and unnecessary bleeding.

Once tubular portions of the testicle within the vaginal tunic is exposed, a transfixing (4 or 5 metric synthetic absorbable) ligature is placed using the cremaster muscle as an anchor point.

Now, the whole tubular portion can be emasculated distal to the ligature.

Ensure that the placement of the ligature and emasculation are performed as proximally as possible.

Before removal of emasculators, grasping an edge of the stump with an Allis tissue forceps will allow retrieval of the stump if bleeding is noted.

Scrotal wounds are left to heal by second intention

Advantages

- Contamination of the peritoneal cavity is reduced as the vaginal tunic is not entered before it is sutured.
- The placement of a ligature ensures better hemostasis and reduces the chances of evisceration

Disadvantages

- This procedure requires a longer surgery time.
- Risk of postoperative infection is increased as the ligature acts as a foreign body.
- This technique can only be safely performed under general anesthesia



591 Blunt exposure of the vaginal tunic, using fingers and sterile swabs, allows the testicle to be exteriorized sufficiently from the scrotum or inguinal region to allow placement of a ligature and emasculators.



592 Applying a transfixing ligature to the dissected vaginal process during a closed castration under general anesthesia and with strict asepsis.

Procedure- Scrotal Closed Castration with Primary Closure

- The dead space created in the scrotal sac must be closed by suturing the wall of the scrotum to the wall of the median raffe.
- Intradermal sutures will ensure skin-edge apposition without need for skin sutures.
- For alternative primary closure: perform scrotal ablation can be performed to reduce the dead

Advantage: Faster healing time and reduced chance of infection

Disadvantages: no drainage will occur, strict aseptic technique is required and might only be achieved in a hospital/clinic environment.

Procedure- Parainguinal Closed Castration with Primary Closure

A parainguinal incision is carried out between the scrotum and the thigh over the inguinal canal.

The correct site can be identified by pushing the testicle from the scrotum into the inguinal canal and incising over it.

Only a small incision is required (5-7cm). The subcutaneous tissues are then bluntly dissected and the vaginal tunic in the inguinal canal is identified.

Blunt dissection around the vaginal tunic is performed and continued in the scrotum to free the vaginal tunic attachments to the subcutaneous tissues.

The testis can then be retrieved through the incision and the procedure continues in the same way for closed castration.

The wound is closed using a subcutaneous layer and intradermal layer

Advantages: This procedure shown to cause minimal complications which allows the horse fast return to work (7-14 days).

Disadvantages: swelling may occur

Postoperative Managemet

- The horse is allowed to recover from sedation/general anesthesia as normal
- The horse should be kept under close monitoring for the first 6-12 hours in a clean stable.
- Medication with NSAIDs is recommended for 2/3 days
- The horse should be walked in hand and/or kept in a small paddock for the first 7 days. (if skin wounds were left open)
- The horse should be restricted exercise for 7 days if primary skin closure was done
- Exercise may resume 10 days postop if no postoperative complications occur
- The owner should be informed that the horse might remain fertile for up to 6 weeks and to monitor for excessive swelling, bleeding and general signs of systemic illness