**Background Information**

**Indications**

Synonyms for castration include orchidectomy, emasculation, gelding, and cutting. Castration is one of the most common equine surgical procedures and is usually performed to sterilize horses unsuitable for the genetic pool and to eliminate masculine behaviour. By removing the primary source of androgens, castration renders the horse more docile and manageable. Sometimes castration is delayed until a masculine feature, such as a crest on the neck, has developed or until it becomes apparent that the horse is unsuitable for breeding. Castration may be performed to alter conformation. Stallions castrated prior to puberty grow to a greater height because castration delays closure of the growth plates of their long bones.

Orchitis, epididymitis, testicular neoplasia, hydrocele, varicocele, testicular damage caused by trauma, torsion of the spermatic cord, or inguinal herniation may necessitate unilateral or sometimes bilateral orchidectomy.

Castration can be performed at any time; however, the colt is often left intact for 12–18 months to allow for development of certain desirable physical characteristics. Other animals may be castrated at a later age when it is no longer desirable to maintain them as stallions. Prior to castration, it should be ascertained that the animal is healthy and that both testes are descended. If a horse is anesthetized and only one testis is descended, the surgery should be aborted unless the surgeon is comfortable with cryptorchid castration. Many methods of castration are available.

In the technique of **“closed” castration**, the common vaginal tunic is dissected, but not opened; and emasculation of the entire cord within the tunic is performed as a single procedure. Several structures are enclosed within the jaws of the emasculator and there is a greater chance that a vessel will be emasculated inadequately. This technique should be restricted to patients with small testes.

In a **modified-closed technique**, the vaginal tunic is sharply incised over the spermatic cord, the vascular structures exteriorized and emasculated, followed by emasculation of the entire cord.

In the **“open” technique**, the common tunic is opened with the initial skin incision, and prior dissection of the tunic from the subcutaneous tissue is not performed. This method is commonly used without any problems, but the chances of inadequate tunic removal with consequent hydrocele are increased. A technique of primary closure in multiple layers with ablation of the ventral scrotum. The testicles are removed by emasculation combined with trans-fixation ligatures. Additional skin may have to be removed, so the scrotum is completely ablated when the skin edges are opposed. Closure of the subcutaneous and subcuticular tissues is performed in three or four layers. This method is certainly more time consuming than other procedures, but postoperative scrotal swelling is usually eliminated.

**References:**

**1. Equine Medicine, Surgery and Reproduction, 2nd Edition by Tim Mair, Sandy Love, Jim Schumacher, Roger Smith and Grant Frazer.**

**2. Equine Surgery 3rd Edition by Auer and Stick**

**3. Turner and Mcllwraiths’s Techniques in Large Animal Surgery 4th Edition by Dean A. Hendrickson and A.N. Baird.**