

Castration

Anaesthesia

Adapted from “Techniques in Large Animal Surgery - Dean A. Hendrickson”

Castration may be performed on the standing animal under local analgesia or with the animal in recumbency under general anaesthesia. The technique depends on the temperament of the animal, the experience of the surgeon, and in some situations, the tradition and environment in which the horse is castrated. For castration of the standing animal, a tranquilizer or sedative may be administered to the horse, and local infiltration analgesia is performed. A combination of detomidine hydrochloride (0.12 ml/100 kg) or xylazine hydrochloride (0.3–0.5 mg/kg) and butorphanol (0.9 ml/100 kg) is commonly used and provides reliable sedation.

Following surgical preparation of the area, the skin is infiltrated on a line 1 cm from the median raphe with 10 ml of local analgesic solution; this infiltration is continued into the subcutaneous tissue. Local analgesia can be injected directly into the testis (≈ 20 ml). It is also important to infiltrate the spermatic cord in the region of emasculation with a long 18- to 20-gauge needle.

For castration of the recumbent animal, several anaesthetic regimens are available and suitable. Anaesthesia may be induced by intravenous administration of a xylazine (1.0 mg/kg) and ketamine hydrochloride (2.2 mg/kg) mixture (+/- butorphanol and diazepam). If the procedure is prolonged, a second dose may be given intravenously according to the desired time of anaesthesia. Alternatively, guaifenesin in combination with thiamylal sodium may be used; or if rapid induction is desired, thiamylal sodium or thiopental sodium alone is suitable. Local anaesthetic should be additionally given directly into the testicle to be removed last as the general anaesthesia may begin to wear off by this time.

For a right-handed operator, the horse is cast with the left side down. The upper hind leg is tied cranial, and the surgical site is prepared. Clipping or shaving is not necessary. It can be easier to position the horse in dorsal recumbency using bales to hold the horse in place.