

Analgesia and Anesthesia

STANDING CASTRATION

Sedating the horse to be castrated while standing is optional but advisable. Drugs commonly used, either alone or in combination, are xylazine HCl, detomidine, pentazocine, and butorphanol tartrate. Acetylpromazine, although commonly administered to tranquilize stallions before castration, can result, on rare occasion, in priapism or penile paralysis, and so its use in stallions should be avoided. The scrotum must be anesthetized on each side of the scrotal raphe from the cranial to the caudal pole of the testis along the proposed lines of incision. The spermatic cords can be anesthetized by injecting local anesthetic solution, usually 15 to 30 mL, through a 22- to 20-gauge needle directly into each cord. This anesthetic technique ensures good anesthesia of the cord but occasionally causes a hematoma that interferes with application of the emasculator. Alternatively, about 25 mL of local anesthetic solution (without epinephrine) can be injected directly into the parenchyma of each testis through an 18-gauge, 1½-inch needle. The anesthetic solution diffuses proximally into each spermatic cord.

RECUMBANT CASTRATION

A variety of intravenous anesthetics, alone or in combination, can be administered to provide safe and predictable anesthesia of sufficient duration. A thiobarbiturate administered as a bolus produces rapid anesthesia characterized by moderate analgesia and muscular relaxation, particularly if the horse has been sedated with xylazine. Recovery is usually satisfactory if repeated administration of the thiobarbiturate is not necessary. Ketamine, administered after sedating the horse with xylazine, provides 10 to 15 minutes of surgical anesthesia. Muscular relaxation and analgesia are only moderate but can be enhanced if butorphanol tartrate or diazepam is added to the preanesthetic regimen. If necessary, anesthesia can be extended by administering half the dosage of xylazine and ketamine combined in one syringe. Guaifenesin (5% to 10%), in combination with ketamine or a thiobarbiturate, provides smooth induction and recovery and good analgesia with excellent muscular relaxation, but guaifenesin must be administered in large volumes. Succinylcholine, a muscle relaxant, has been widely employed as a chemical restraint for recumbent castration, but because it provides no analgesia, its use alone for castration is inhumane.