Dehorning the Adult Goat

The mature goat is dehorned either to reduce the danger to man and other animals or if its horns are broken. Dehorning of male goats is sometimes combined with removal of the scent glands.

Anesthesia and Surgical Preparation

- **The hair around the horn should be clipped.**
- **Sedation (Xylazine 0.05–0.1 mg/kg) and**
- **Local anesthesia (Lidocaine 4 mg/kg IM using 2ml per site (4 sites in all) in 5 mins) are appropriate to limit pain.**
- **Site for local anaesthesia:**

1. **The cornual branches of the zygomaticotemporal (lacrimal) and infratrochlear nerves provide sensory innervation to the horns.**
2. **The site for producing block of the cornual branch of the lacrimal nerve is caudal to the frontal process of the zygomatic bone (root of the supraorbital process).**
3. **The needle should be inserted as close as possible to the caudal ridge of the frontal process of the zygomatic bone to a depth of 1.0–1.5 cm.**
4. **The syringe plunger should be withdrawn before injection to check that the tip of the needle has not penetrated the large blood vessel located at this site.**
5. **The site for blocking the cornual branch of the infratrochlear nerve is at the dorsomedial margin of the orbit.**
6. **The needle should be inserted as close as possible to the margin of the orbit and under the muscle to a depth of about 0.5 cm.**
7. **In larger goats, a ring block around the entire base of the horn may be necessary.**
8. **Prick around the base of the horn with a needle to ensure the anaesthesia was effective, no response should be observed.**

Surgical Technique

1. **The skin is incised 1 cm from the base of the horn.**
2. **The surgeon seats an obstetric wire saw or Gigli wire saw in the caudomedial aspect of the incision and removes the horn by directing the saw in a craniolateral direction.**
3. **In male goats, the scent glands are located at the base of each horn (caudal and medial) and generally are removed during the dehorning procedure.**
4. **Hemorrhage from the superficial temporal artery can be severe and should be stopped by ligating the artery or by pulling and twisting it with a hemostat.**
5. **When a goat is dehorned correctly, its frontal sinuses are exposed.**

OR

1. **Cosmetic dehorning has been described as a method to avoid the need for extensive postoperative management of an open sinus with bandages and wound monitoring.**
2. **The dehorning is performed as described above.**
3. **After horn removal, a rongeur is used to remove frontal bone to thus allow skin closure over the surgical site.**
4. **The skin at the incision edges is undermined; release incisions may also be needed in the skin between where the horns were located.**
5. **The skin incisions are then closed with near-far-far-near or simple interrupted sutures.**
6. **In some cases, it is difficult to completely close the surgical site. However, the open segment of the partially closed wound left to heal by secondary intention is greatly reduced in size and the healing is much quicker.**
7. **Skin sutures should be removed in 3 weeks.**

Postoperative Management

- **Inject 300- 500 IU tetanus antitoxin.**
- **Topical antibacterial powder is dusted onto the open frontal sinus or pack it with antibiotic infused gauze.**
- **Bandaged prevent both myiasis and the collection of foreign material in the sinus.**
- **Bandages should be changed with a administering or more antibiotics on the 2nd and 5th day post op.**
- **Administer antibiotic spray, anti-myiasis spray and anti-inflammatory agents.**
- **Do not mix with other members of the herd until the wound has healed.**
- **Any abnormal odor, purulent nasal discharge, head shaking, or rubbing is often an indication of frontal sinusitis, which necessitates removal of the bandage and further antibiotic treatment.**

Complications and Prognosis

- **Dehorning can result in a reduction in milk production, impairment of spermatogenesis, sinusitis, myiasis, and loss of social status in the herd.**
- **Goats do not tolerate pain associated with even minor surgical procedures and can die of shock if sufficient analgesia is not provided.**
- **Good prognosis.**

Turner and McIlwraith's Techniques in Large Animal Surgery 4th Edition by Dean A. Hendrickson and A. N. Baird.
Farm Animal Anesthesia Cattle, Small Ruminants, Camelids, and Pigs Edited by HuiChu Lin and Paul Walz.
Farm Animal Surgery Edited by Elizabeth M. Fathman.