## Anesthesia \& Surgical Preparation

The methods of restraint and anesthesia are important in any teat surgery because the repair must be meticulous. A tilt table, ideal for restraint, generally is not available to most practitioners who must deal with teat lacerations in the field. Xylazine hydrochloride (Rompun) is a useful means of restraining the cow in lateral recumbency for teat surgery. Many surgeons prefer positioning the cow in dorsal recumbency for teat procedures. Butorphanol ( $0.5 \mathrm{mg} / \mathrm{kg}$ ) may be added for very fractious animals. If the cow's disposition is good, teat surgery may be attempted with the cow in the standing position using local anesthesia, but results are more predictable if the cow is tabled or cast and is neither uneasy nor kicking. Local anesthetic injected around the base of the teat (circle or ring block) is the most common technique for anesthesia. Epinephrine should not be


FIG. 5-13. Needle placement in the cow's teat. A, Inverted V block. B, Teat ring block. $\mathbf{C}$, Tourniquet and cannula placement for teat cistern infusion. used with the local anesthetic. Topical anesthetic can be infused directly into the teat canal to supplement ring block anesthesia. For topical anesthesia, $2 \%$ lidocaine (not procaine) should be used. Epidural anesthesia is an effective alternative for teat surgery. To control hemorrhage and milk flow, a rubber tourniquet may be applied to the base of the teat. Doyen forceps clamped across the base of the teat can also be used successfully. When lacerations involve the base of the teat, suturing has to be performed without the benefit of a tourniquet. The udder and surrounding teats should be washed thoroughly. Harsh disinfectants should be avoided because they can cause further tissue necrosis if they contact the lacerated tissue. The affected teat can be draped with a slit drape, so it protrudes from the opening in the drape. Once the borders of the laceration have been assessed carefully, a prognosis can usually be given.

Hendrickson, D. and Baird, A. (2014). Turner and McIlwraith's techniques in large animal surgery. 4th ed. Ames, Iowa: John Wiley \& Sons, pp. 286

