Surgical Approach

Anesthesia is induced with 0.3% sodium thyiamyl and 5% glycerol guaicolate solution given i.v. at 0.25 mg/kg BW. The cow is then intubated and maintained on halothane.

Make a 10 to 12 cm incision over the inguinal region between the medial thigh and the lateral surface of the mammary gland. Locate the inguinal canal. Carefully isolate the pudendal artery just ventral to the inguinal canal. Place the Flowprobe around the pudendal artery by unscrewing the reflector, fitting the reflector and Probe around the artery and then reattaching the reflector to the Probe body with the screws. Suture the Probe via the silicone shield, directly into the musculature of the external pudendal artery with #00 silk. Direct suturing is necessary because the vessel is loosely attached and normally follows a sigmoidal path. Correct suturing prevents twisting and constriction of the artery.

(Continued on next side.)

Surgical Approach cont.

Use a 2 cm blunt trochar to create a subcutaneous tunnel to the flank to exteriorize the Flowprobe cable (keep connector capped during implantation, exteriorization and when not connected to the Flowmeter for measurements). Place a mattress suture in the skin around the cable exit site to stabilize the cable and reduce the risk of infection. Use branding cement to affix a plastic bag around the exit site. The bag helps keep the site and the cable clean. Use of post operative penicillin every 12 hours for 3 days is recommended. The exit site should also be cleaned with alcohol every other day.

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REFERENCES

Note: Protocol has been updated to reflect advances in Probe technology.