

A Simple Technique for Repairing Teat Lacerations and Fistulas in Cattle

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Teat lacerations are common in dairy practice. Lacerations that invade the teat cistern often result in complications. Teat fistulas may result from continuous drainage of milk from the laceration. Mastitis may result if contamination and infection are not controlled. Therefore, extreme care must be initiated to prevent contamination and infection. Teat lacerations must be treated as soon after injury as possible. Teat fistulas are best treated during the non-lactating period. A frequent post-surgical sequelae is a stricture of the teat canal or cistern after healing. To prevent this stricture during healing, to administer medication to an infected quarter or to relieve milk pressure in lactating animals it becomes necessary to insert a teat tube or catheter.

This paper describes a technique for repair of teat lacerations invading the teat cistern and teat fistulas utilizing an indwelling catheter to prevent milk pressure on the incision.

Materials and Methods

The materials needed are a small routine surgical instrument pack, catgut suture (Ethicon), Vetafil (Bengen & Co.), or stainless steel wire or silk, Elasticon adhesive bandage (Johnson & Johnson), and a Foley (8-12 French with 30cc balloon) catheter (Figure 1).

The animal may be sedated and treated standing or placed on a surgical table. The teat is cleaned thoroughly with a surgical soap and the internal canal may be flushed with an antibiotic solution. Anesthesia is accomplished by a ring block at the base of the teat. The wound edges are debrided. Any scar tissue should be removed from the wound edges. The teat cistern should be free of blood clots.

After the wound edges have been debrided, the Foley catheter is placed through the teat canal and into the teat cistern so that the balloon will be in the gland sinus. The catheter should be insufflated with 20-30cc of air to hold the catheter in place and prevent milk leakage into the teat cistern (Figure 2). The mucosa and submucosa layers are brought into apposition with 00 medium Chromic catgut with a swaged needle. A continuous pattern is preferred because of fewer knots. The sutures should not penetrate the mucosal layer into the teat cistern. The skin and submucosa are sutured with a fine, non-capillary, interrupted suture. A vertical mattress suture pattern is recommended (Figure 3).

After suturing, elastic adhesive bandage is placed around the teat and catheter. The catheter should be looped to prevent kinking. The end of the catheter should be secured to the udder by sutures (Figure 4). The catheter may be left for 5-7 days.

Conclusions

A simple technique is described for repairing teat lacerations and fistulas. The Foley catheter has the advantage of being an indwelling catheter in which medication can be applied (infused) and milk can be released. It prevents pressure on the incision by keeping milk from the teat cistern.

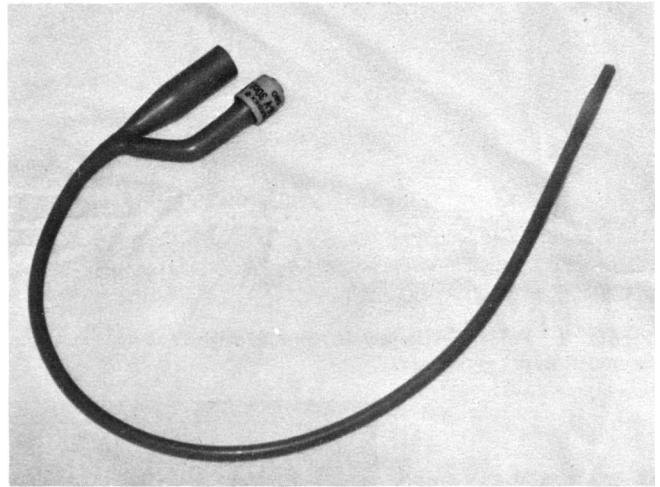


Figure 1. Foley French Catheter.



Figure 2. Foley Catheter insufflated with 20cc of air.

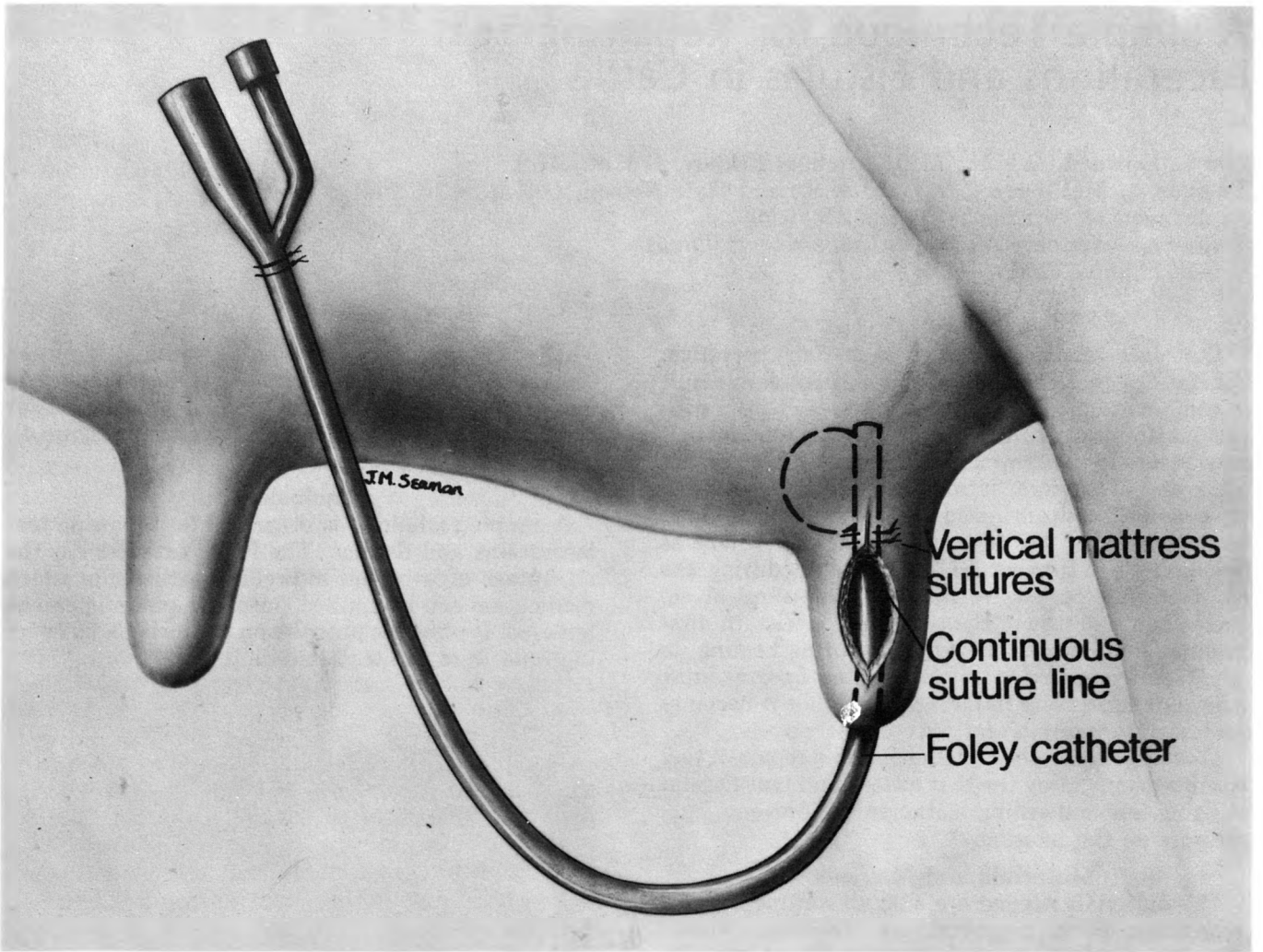


Figure 3. Foley Catheter in place with suture patterns demonstrated.

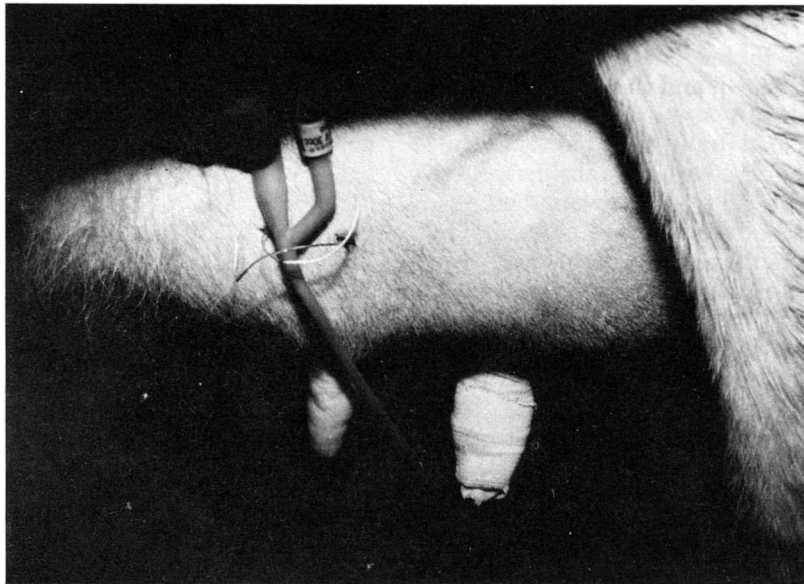


Figure 4. Foley Catheter taped to teat and sutured to the udder to hold it in place.