

# Radical Mastectomy – Small Ruminants

## Indication

- Gangrenous mastitis not responsive to medical treatment
- Precocious Udder that exhibits inappropriate lactation
- Localized mammary disease

## Procedure

1. A radical mastectomy is performed with the animal in dorsal recumbency under general anaesthesia (allows access to more skin, making closure easier with minimal tension)
2. Some veterinary surgeons prefer an elliptical skin incision. The inverted cloverleaf skin incision, however, allows dissection of the skin away from the mammary tissue and identification of the vasculature to allow ligation of the vessels to prevent haemorrhage



**Figure 15-1** Three lines of the four that make up the inverted cloverleaf skin incision for mastectomy in a 4-year-old Pygmy doe. This view is from the rear, with the animal in dorsal recumbency. The teats are being held adjacent to each other by an assistant's gloved hand. (Courtesy Dr. A.N. Baird, Purdue University.)

3. The mammary tissue can be bluntly dissected off the external rectus sheath by fanning of the operator's hand under the glandular tissue.



**Figure 15-2** The external pudendal vein near the right inguinal ring, in the doe shown in Figure 15-1. In this caudal view, the skin has been dissected to the *left* and the mammary tissue is to the *right*. (Courtesy Dr. A.N. Baird, Purdue University.)

4. The skin closure is then done in an X shape, with latex drains placed subcutaneously exiting away from the incision line



**Figure 15-3** X-shaped skin closure after mastectomy in the doe in photo 4, with a latex drain in place. The view is from the right side of the doe with her rear to the right. (Courtesy Dr. A.N. Baird, Purdue University.)

5. The dissection leaves abundant dead space, which should be ablated as much as possible by tacking the subcutaneous tissue

#### **Alternative method**

- **An alternative to radical mastectomy in does with gangrenous mastitis is ligation of the mammary vasculature in conjunction with the amputation of the teat.**
- **This surgical approach allows drainage of the glandular discharge and ultimately avascular necrosis of the udder.**
- **When compared with a traditional radical mastectomy, this method was described as quicker to perform, less expensive, and less stressful to the goat**
- **However, the sloughing udder may not be cosmetically pleasing to the owner**