Procedure for Fistula Repair

Amputation

* An elliptical skin incision in the sagittal plane is made around the teat at the junction of the proximal and middle thirds.
* The teat wall is sharply dissected in a slightly proximal direction and transected, thus creating a fish mouth–like teat stump.
* Bleeding vessels are ligated separately.
* With the clamp still in position, the submucosa and intermediate layers are tightly apposed with one nonperforating continuous horizontal mattress suture each and #4-0 monofilament synthetic resorbable suture material with a taper point swaged-on needle.
* The skin is closed with interrupted sutures accordingly by using #3-0 or 4-0 monofilament suture material with a reverse cutting swaged-on needle.
* If the laceration does involve the teat base, the amputation is performed just distal to the annular ring.
* A skin flap attached to the base is preserved. The wound is curetted and rinsed, margins debrided, and submucosa and intermediate layers routinely sutured.
* The skin flap is used to cover the defect, which is closed with simple interrupted sutures.

Thelotomy

* A 3-4cm long incision (depending on the length of the teat) through the skin and intermediate layers is made on the lateral aspect of the teat.
* A blunt metal probe is introduced through the streak canal into the teat sinus to protect the mucosa of the medial teat wall from inadvertent laceration while the mucosa is being carefully transected with a scalpel blade.
* The rosette of Furstenberg is exposed and closely inspected (Figure 12.2.6-12), and the obstructing tissue is carefully excised with a pair of fine scissors.
* The submucosa and the intermediate layer are opposed with one continuous horizontal suture pattern with a size #4-0 monofilament synthetic resorbable suture material with a taper point swaged-on needle.
* The skin is closed with simple interrupted sutures with #3-0 or 4-0 monofilament suture material with a reverse cutting swaged-on needle.

**Implantation of Teat Prosthesis is done if the lesion bed cannot be covered by the mucosa.**

**The implant consists of sterile silastic tubing (7mm ID, 10 mm OD) without any fenestration.**

* A blunt teat cannula is placed through the streak canal, and the implant placed over the cannula so it rests near the rosette of Furstenberg.
* The implant is then placed in the teat sinus and the length of the prosthesis selected; the prosthesis must span the teat sinus without entering the gland cistern.
* The prosthesis is then cut with scissors and replaced in the teat sinus.
* The implant is secured in place with three vertical equidistant sutures by using nonabsorbable polypropylene 2-0 suture on a cutting needle
* These three sutures are placed so that the tubing is pulled distally to rest against the rosette.

The specific bites are placed as follows:

* the first bite of the suture in the center of the thelotomy incision is placed from proximal to distal into the full thickness of the silastic tubing at the midpoint of the implant.
* The second bite is placed in the wall of the teat, starting 3 to 4 mm distal to the exit point of the suture in the implant.

This suture must be anchored deep in the wall of the teat so the surgeon can feel the needle passing immediately subcutaneously.

* The suture then exits again a few mm distal to the distal exit point of the suture in the implant.

When the suture is tied, the implant is rotated into place. Offsetting the sutures ensures that the implant stays against the proximal aspect of the streak canal

* A second suture on the cranial wall of the teat sinus and a third at the caudal wall of the teat sinus are placed similarly.