

# Surgical Problems of the Penis and Prepuce of Bulls

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## Part II

### Lacerations and Abscess of the Prepuce

**S**ERIOUS injury to the penis and prepuce often follow attempts of the bull to breed a cow across a barbed wire fence or other obstacle. Similar injuries may occur when the bull is running with cows in brushy pastures. Lesions of this type are a serious threat to the breeding life of the bull, particularly if they escape detection or if neglected by the herdsman until the swelling is pronounced as the result of bacterial infection. An abscess forming between the prepuce and sheath is a common sequela and may follow even minor injuries of these tissues. The abscess usually appears as an oval swelling on the ventral aspect of the sheath several inches posterior to the preputial orifice. This condition has been confused with "broken penis," but can be differentiated by the location of the swelling and the inflammatory reaction in the early stages of the abscess.

The prognosis for the continued breeding ability of the bull depends on the extent of the infection that follows the laceration. The modified squamous epithelium that lines the prepuce heals rapidly and unless infection gains entrance into the deeper structures, the bull may be returned to service in a few weeks. Extensive in-

fection or abscess formation invariably results in the development of adhesions that prevent protrusion of the penis.

Treatment of these conditions should be instituted as soon as possible. If the laceration is detected early the penis should be drawn from the sheath, the lesion carefully cleansed and an antibiotic ointment applied. Suturing the wound is not advised except in the case of extensive lacerations. The daily flushing of the sheath with an antibiotic solution will aid in the control of infection.

In cases where an abscess is developing between the prepuce and sheath, it is usually difficult to draw the penis from the sheath and treatment should be directed toward control of the infection. Parenteral antibiotic therapy along with irrigations of the preputial cavity and hot packs applied to the area are suggested treatments. An abscess of the prepuce seldom points and, therefore, must be drained after the inflammation subsides. It is advisable to wait until the infection is eliminated and the drainage incision has healed before attempts are made to break down the adhesions. If infection is present when this is attempted, the infection may spread and result in more extensive adhesions than those previously found.

Every effort should be made to break down the adhesions by means other than surgery. After the swelling has subsided, it is generally possible to work the tip of the penis out of the preputial orifice so that a firm grasp can be obtained on the

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**Severe hematoma of penis**

glans penis. By anterior traction on the penis and posterior traction applied to the skin of the sheath behind the site of the original abscess, it is often possible to break down the adhesions. This must be repeated every few days until no adhesions reform or service by the bull will frequently accomplish this end. Surgical intervention for the purpose of severing the adhesions is generally unsuccessful and should be reserved for those cases in which the manual separation is impossible. Because of hemorrhage in this highly vascular tissue, considerable swelling follows the surgery and the adhesions quickly reform.

#### **"Fracture" (Hematoma) of the Penis**

"Fracture" of this organ is generally considered to be the result of a break in the tunica albuginea of the penis with the escape of blood from the corpus cavernosum into the surrounding tissues. In some cases it is not possible to find the tear in the tunica albuginea, and it is thought that a rupture of one of the blood vessels in the area might have been responsible for the blood loss into the tissues. The hematoma causes an oval swelling of varying size above or surrounding the penis just anterior to the scrotum. It is believed to be the result of an injury during attempted copulation. After the hematoma develops, the bull is unable to protrude the penis and unless the condition is corrected by early surgical intervention,

it is likely that the bull will remain impotent.

Treatment consists of the removal of the clotted blood. The optimum time for the surgery is between the fourth and tenth day following the "fracture." In many cases the duration of the hematoma is not definitely known and the decision as to the appropriate time for surgery will depend on an examination of material aspirated from the swelling. The surgery should be performed after the blood has clotted and before it undergoes organization. If the hematoma is over three weeks duration, it is common to find the clot has become infected and pus will be found on aspiration of the swelling.

Aseptic surgery should be practiced unless the hematoma has become infected. The bull is restrained in lateral recumbency on the side opposite the most pronounced swelling. Tranquilization plus infiltration of the skin of the operative site with a local anesthetic is sufficient to minimize pain and struggling. After preparation of the area, an incision four to six inches long should be made parallel to and above the penis and over the most prominent part of the hematoma. The clotted blood should be removed carefully to minimize the danger of recurrent hemorrhage into the cavity. It may be advisable to instill an antibiotic into the cavity before the skin is closed with a noncapillary suture material. In the writer's opinion it is not advisable to disturb the tissue more than is absolutely necessary. Sutures to close the tunica albuginea or to obliterate the cavity may interfere with proper erection of the penis and increase the danger of adhesions.

If infection of the hematoma has occurred prior to surgery, a smaller incision may be indicated. After drainage and flushing of the abscess an antiseptic pack should be left in place for 24 hours. After removal of the pack, the cavity should be flushed daily with a mild antiseptic solution until healing is complete.

On the third day following the operation, the bull should be allowed to serve a cow and this practice should be continued for several days. Three or four daily injections

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**Ovine Dystocia Caused By Abdominal Distention of the Fetus.**

On the evening of February 21st, an eight year old Cheviot ewe was noticed by the owner to be having difficulties lambing. He observed that a small portion of the fetal placenta was hanging from the vulva of the ewe. His attempts to deliver the lambs were not successful. On the morning of February 22nd the ewe was admitted to the Stange Memorial Clinic as a dystocia case. The partially opened cervix was dilated manually and examination revealed that the fetus was still alive. The fetus was in an anterior presentation, dorso-sacral position, but its head was retained dorsally. After repulsion of the fetus, the abnormality in presentation was corrected. The fetal head and forelegs then passed easily through the pelvic portion of the birth canal. Further attempts to deliver the lamb by manual traction were unsuccessful. Examination revealed that the fetal abdomen was so severely distended that it was causing the dystocia. The diagnosis made was ovine dystocia caused by severe abdominal distention of the fetus. A presumptive diagnosis of fetal atresia ani was also made.



**Abdominal Distention of Ovine Fetus**

A partial embryotomy was considered but the idea was discarded because the clinician suspected a rupture of the uterus. A caesarean section was performed. The uterus was found to be ruptured in two different locations, resulting in severe blood loss and shock. The presumptive diagnosis of fetal atresia ani was confirmed on delivery of the fetus. All attempts

to start this abnormal fetus breathing were fruitless. The fetal abdominal cavity was greatly distended and there was considerable edema in the tissues around and including the scrotum. The gastro-intestinal tract was filled with a mucoid type fluid; a little meconium was evident in the fluid.

Since many of the animals that have atresia ani show no abdominal distention at birth, it might be assumed that in this case there must have been an alteration in the normal mechanism of absorption of the swallowed amniotic fluid from the fetal digestive tract. Since the fluid had no escape because of the atresia ani, a greatly distended abdomen was the result.

A second lamb which was normal but weak was removed from the other horn of the uterus. This lamb died. The ewe expired a few hours later as a result of blood loss and shock.

Carlós Gomes, '61

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#### **Surgical Procedures**

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of 200 to 300 mg. testosterone may be administered to the bull for the purpose of increasing libido. Where cows in heat are not available or the bull is unable or unwilling to extend the penis, it is advisable to pull the penis from the sheath every few days to break down adhesions that may form.

In some cases of extensive hematoma, the subcutaneous tissues and skin over the area of the swelling may be stretched to the point that when the bull has an erection the penis will bow downward just anterior to the scrotum. This results in the distal end of the penis slanting upward with the tip almost in contact with the ventral abdominal wall of the bull. Penetration of the cow may not be possible because of the unusual position of the penis. The stretching of the "penis sling" is easily corrected by the removal of a horizontal portion of skin on either side of the penis, thus preventing the downward bow of the penis in this area.

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