

## RUMENOTOMY IN CATTLE

Rumenotomy is a surgical procedure that allows evacuation of rumen contents in cases of acute frothy bloat not controllable by silicones or mineral oil, or exploration of gastric reservoirs to extract implanted foreign bodies causing traumatic reticuloperitonitis.

### EMERGENCY RUMENOTOMY

Prevents the patient from dying of asphyxiation due to diaphragmatic compression from rumen bloat. Often performed by the farmer with a knife thrust into the flank.

#### **Surgical Steps** (if cow standing):

- Briefly hobble hocks, hold head high.
- Local anesthesia is of little use.
- Incise skin and muscles in one step after rough shaving and antiseptics.
- Quickly suture the rumen to the skin using the Goetze mattress suture.
- Incise the rumen, taking care to avoid the pressurized liquid jet.
- If cow is down/cyanotic: Fend the abdominal wall and rumen in a single stab gesture.

#### **Creation of Temporary Fistula:**

The Goetze suture is left for 48 hours. In catastrophe cases, after recovery, under local anesthesia, exteriorize the rumen and secure the ruminal breach to the skin.

#### **Repair (Fistula Closure):**

- Cow standing, flank anesthetized (paravertebral).
- Disinfect fistula, remove Goetze suture, break fibrin adhesions.
- Resect exteriorized rumen portion, disinfect serosa.
- Suture ruminal wound (e.g., Schmielen continuous hemostatic suture with chromic catgut No. 8).
- Perform imbrication (Cushing or Reverdin suture).
- Reconstruct abdominal wall layer by layer, leaving a drain.

**Postoperative Care:**

- Anti-infective treatment with antibiotics and anti-gangrene serotherapy.

**CLASSICAL RUMENOTOMY**

Indicated for extraction of foreign bodies from the reticulum causing traumatic reticuloperitonitis or traumatic pericarditis.

**Preparation:**

- 24-36 hour diet; intensive antibiotics to reduce fever.
- Restraint standing, head fixed high.
- Local anesthesia (Berthelon infiltration or paravertebral).

**Surgical Steps:**

1. Incision: Vertical or slightly oblique incision in the flank (20-30 cm). Careful hemostasis.
2. Exteriorization: Grasp rumen with Muzeux forceps and pull it into the wound.
3. Isolation (Goetze Suture): Place a simple continuous suture with large bites between the rumen and the skin to protect the peritoneum.
4. Septic Phase - Rumen Incision & Exploration: Incise rumen with scissors. Insert a gloved arm to explore ruminal sacs and the reticulum. Extract foreign bodies.
5. Rumen Suture: Close rumen with a Schmieden continuous perforating suture (chromic catgut No. 8-10). Imbrication (Cushing/Reverdin) is optional.
6. Abdominal Wall Closure: Suture in three layers (peritoneum/transversus with continuous suture; muscles with X sutures, leaving a drain; skin with nasal staples or U-sutures).

**Postoperative Care:**

- Preventive antibiotics (penicillin) and anti-gangrene/tetanus sera.
- Hydric diet for 48 hours, then solid food.
- Skin staples removed on day 15.

**Complications:**

- Spillage of rumen contents (prevented by Goetze suture). Clean with hypertonic saline (5L water, 2 tbsp salt, 1 tbsp bleach).
- Postoperative acute bloat (rare, treat with rumen puncture or gastric tube).
- Localized peritonitis (most common, leading to adhesions).
- Generalized peritonitis (rare, from suture dehiscence).
- Acute mastitis (in dairy cows).