

**A Clinical Report on Surgical Management of
Accidentally Erosive Tongue of Cattle in Banshkhali
Upazila, Chattogram**



A Clinical Report Submitted
By

Intern ID: 55
Roll No:15/104
Registration No.: 01484
Session: 2014-15

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Faculty of Veterinary Medicine
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Khulshi, Chattogram-4225, Bangladesh
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A clinical report is submitted as per approved style and content

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ABSTRACT

The Tongue erosion of Cattle, an infrequent condition, usually characterized by extensive mucosal damage, deep cut with or without irregular ridges resulting in extreme health problems regarding to feed consumption. As usually, the condition results in economic loss as well as discouragement of farmer. Therefore the object of the study is to make a successful intervention to minimize the negative effect of an erosive tongue as far as possible. On 24th February, 2021, A Two year seven months old Cross-breed Cattle was subjected to brought under a surgical intervention due to extensive erosion of tongue. This severe condition was made by the external force of horn of another Cattle while they were fighting to show their hierarchical dominancy. Other than surgical management, medicinal treatments are useless. After performing anaesthesia with lignocaine hydrochloride injection BP 2%, the erosive portion was closed by Simple interrupted suture with the means of Catgut, an absorbable suture material. Antibiotic, Tolfenamic acid, Electrolytes, Vitamin preparation was prescribed. A 15-day follow up showed a significant improvement without any complication.

Key words: Erosion, Surgical intervention, Interrupted suture, Dominance.

CHAPTER 1: INTRODUCTION

The tongue is a movable muscle membranes organ. It has an attached root, body and free apex, capable of both vigorous and precise movements as in prehension, lapping, grooming and manipulation the food (Dyce KM, Textbook of veterinary anatomy, 2010). The tongue mucosal surface is covered by a variety of papillae, filiform, conical, lenticular, fungiform, vallate and foliate (Khalifah Ali1, 2020).Lingual and sublingual branches of the external maxillary artery. The veins drain into the internal and external maxillary veins. The pharyngeal lymphnodes govern the lymph circulation (Venugopalan, (print): 2020-07).The main bulk of tongue is, particularly of the anterior two-three part is skeletal muscle (M. & Copenhaver, January 1, 1971).

There are several factors that are responsible for tongue injury. The condition may be caused by the mechanical (by sharp objects like thorns, nails, sharp broken teeth, needle, blades etc). The condition may also be caused by external force on tongue while they fights to show their dominance, an maternal behavior of animal. In this case tourniquet helped in controlling of bleeding as well as for easy protrusion of the tongue also anesthesia was prolonged in the local area (Dr. VD Aher, 2018). This undesirable condition makes solid or semisolid feed consumption nearly impossible and results in decreased weight, low production along with other complexity. Farmers, therefore, face economic crisis and, hence their encouragement in livestock sector is decreased.

CHAPTER 2: CASE PRESENTATION

2.1 Clinical History:

At North Jaldi, Banskhali A two year seven months old crossbreed Cattle with extensive erosive tongue was brought under surgical intervention. The distal inspection indicated profuse blood-tinged salivation from oral cavity. The cut was approximately 3 inch long at the dorso-lateral side of tongue .The Tongue was protruded and hence, The Cattle was unable to move it's tongue as well as consuming feed. Although the Cattle was mild dehydrated with electrolytic imbalance, other physiological parameters such as Rectal temperature, Mucous membrane, Rumination rate, Respiration rate, Heart rate was in physiological range.

2.2 Surgical Materials:

- Gauze,
- Normal saline,
- Rope,
- Needle Holder,
- Suture materials: Suture –catgut (an absorbable suture)
- Mayo-scissors,
- Metzenbaum scissors,
- Forceps

Needle –half circular traumatic needle

2.3 Pre-surgical preparation :

Mild sedation of the Cattle was achieved with local administration of Lignocaine hydrochloride BP 2% (Inj. Jasocaine 2%,, Jayson) at lacerated wound edges of tongue in order to desensitize the site of operation. All the surgical instruments that were used were disinfected properly.

2.4 Surgical Procedures:

The operative site, at first, was cleaned and disinfected by normal saline (0.9%). Blood tinged Saliva, clotted blood were removed carefully. Two pieces of Gauze were rolled to make them somewhat round in shape and were placed them into two sides of tongue for reducing the movement of tongue ,as far possible, during surgery.

In case of tongue erosion, saliva may gets into trachea resulting in respiratory disturbances as well as aspiration pneumonia. And that's why, The whole surgery was performed keeping the head at lateral position. The tongue was protruded and stuck out with the means of Gauze. The erosive part of tongue , thereafter, was sewn by applying "Simple interrupted suture". In that case, catgut-1, an absorbable suture material was used with an half-circular triangular traumatic needle

2.5 Post-operative care and Result:

As the case was unusual and related with feed consumption complexity, An intensive post-operative management was required. The Cattle was considered to brought under a minimal 15-days follow up to observe the healing process of erosive tongue.. Gentamicin 100mg , An Aminoglycosides Antibiotic, was prescribes for 5 days at 1ml for each 10 kg B.W. To reduce the post operative pain, Tolfenamic acid, An Anti-inflammatory drug, was given at the same dose as Gentamicin. Being unable to to consume solid feed, the Cattle was provided with normal saline daily in intravenous route upto the complete healing of tongue . Multivitamin solution was also provided to avoid hypovitaminosis, electrolytic imbalance and keep it's immunity strong.



Figure 1 :Sticking out the tongue with Gauze



Figure 2:Applying Simple interrupted suture

CHAPTER 3: DISCUSSION

In case of simple laceration, the wound is closed with a layer of simple interrupted sutures using absorbable suture material. (Jit Singh, December 30, 2019). In that case, catgut-1, an absorbable suture material was used with an half-circular triangular traumatic needle. Clean lacerations are sutured with absorbable material to control hemorrhagic and appose epithelial edges, jagged lacerations require debridement before suturing. Barbed foreign bodies such as fishhooks and some bone chips or wood splinters require incision of overlying tissue to prevent more severe damage by blunt removal. Tongue injury rarely requires definitive management and is best left to necrose so that the maximum amount of tongue is retained (Slatter, 2002). Surgical intervention is indicated to promote healing and prevent deformity, to amputate a severely compromised apex, and to alter a scar or defect that is unacceptable to the owner. Because of the tongue's crucial role in prehension of food, as much of the tongue as possible should be preserved. And that's why, the case was carried out with an Surgical management instead of only with medicinal treatment. Where wound surface is devitalized, partial glossectomy is advised. Primary closure of tongue lacerations in cows should be encouraged and partial glossectomy should only be the last resorting (Dixon, 2006). Approximately after 10 days, the stitch became disappear and after 2 weeks, The healing progression was quite satisfactory without any significant wound infection.

CHAPTER 4: CONCLUSION

Erosion of the tongue can result in complete or partial severance of the organ with the severed portion protruding from the oral cavity. For that, proper surgical technique with post-operative management is unavoidable. The Cattle went through an immediate surgical intervention with its erosive tongue along with a continuous follow up satisfactory wound healing within expected time.

CHAPTER 5: REFERENCES

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BIOGRAPHY

I'm Mohammad Golam Azam, An undergraduate student, currently enrolling as an intern veterinarian at chattogram veterinary and Animal Sciences University. Here I'm pursuing a specialized degree named Doctor of Veterinary medicine. I, son of Hadi Md. Mohsin and Shahin Akter, was born and raised up in Chattogram city and received my elementary, secondary and Higher secondary education under chattogram education board. My career vision is to become a skilled veterinarian.