



Surgical Management of Tongue Laceration in a Cow-A Case Report

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Received: November 01, 2022

Published: March 25, 2023

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Abstract

A four and half years old Holstein Friesian crossbred cow was presented to the Veterinary College Hospital, with a complaint of laceration of the tongue to its full thickness at rostral one third, due to barbed wire while grazing. The lacerated tongue was sutured under standing sedation by administering Xylazine @ 0.01 mg/kg, Butorphanol dose 0.02 mg/kg and Ketamine combination @ 0.04 mg/kg body weight along with local infiltration of 2% lignocaine solution using 1-0 polyglactin 910 simple continuous suture pattern. Post operatively inj. streptopencillin at the 20,000 IU/kg body weight administered intramuscularly, with the restricted fodder, local antiseptic gel applied on the tongue for a week, resulted in successful surgical repair of the tongue and the animal regained normal tongue function after 15 days.

Keywords: Barbed wire; Laceration; Repair; Tongue

Introduction

The tongue is a highly vascularised and mobile structure in bovine, capable of selective prehension and mastication. It is located ventrally in the buccal cavity and plays a very important role in the stability of upper airway [1,2]. Abnormalities of the tongue due to the foreign body trauma were reported [1,3-5]. Tongue affections are very dangerous to the health of animal because they cause dysphagia and weight loss [4]. Tongue injuries can be managed with primary closure, second intention healing or glossectomy depending on the severity, duration, and location of the injury [1,3,6].

Materials and Methods

A Four and half years old Holstein Friesian crossbred cow was presented to the Veterinary College Hospital, Immediately after injury, with a complaint of laceration of the tongue to its full thickness at rostral one third, was due to barbed wire while grazing.

Upon physical and clinical examination, a transverse laceration involving full thickness at rostral one third of the tongue (Figure 1) was noticed with, ptyalism and the haematological parameters were within the normal range.

Preoperatively the animal was administered with inj. Streptopencillin @ 20,000 IU/kg body weight and Meloxicam @ 0.3 mg/kg body weight intramuscularly. Standing sedation was achieved by administering the combination of inj. Xylazine 0.01mg/kg body weight, inj. Butorphanol 0.02 mg/kg body weight and inj. Ketamine 0.04 mg/kg body weight administered intramuscularly. After restraining the tongue was washed with Normal saline. Local analgesia at the wound site was achieved with injection lignocaine hydrochloride 2% solution and the wound was debrided. Laceration was sutured using 1-0 Polyglactin 910 with a layer of Simple continuous pattern with knot in ventral side of tongue (Figure 2).



Figure 1: Lacerated tongue.



Figure 2: Sutured lacerated tongue.

Postoperatively, parenteral administration of inj. Streptopenicillin @ 20,000 IU/kg body weight intramuscularly for 4 days and Meloxicam @ 0.3mg/kg body weight for 2days and Chlorhexidine gel was applied on the sutured site. Animal was maintained on liquid diet for 2 days followed by soft green fodder for 5 days. After a week Animal showed an uneventful recovery.

Results and Discussion

[7] employed double layer suture pattern in repairing deeply lacerated tongue in a bull, however in present case complete thickness of tongue was sutured by single layer simple continuous pattern with knot in ventral side of tongue. Deep laceration of tongue require surgery and in some cases with extensive laceration, partial glossectomy was recommended [8], whereas in the present case the tongue was sutured and preserved. Healing of wound was rapid due to excessive vascularization to tongue [9]. Delayed presentation of lacerated tongue cases, partial glossectomy was last resort when surgical repair is not an option [3]. However, in present case the animal was presented early so surgical repair of lacerated tongue was successful.

Conclusion

Surgical repair of tongue laceration will be successful depends on early presentation and surgical skills, so it was successfully repaired in the present case.

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