

Surgical repair of traumatic laceration of tongue in a cow

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Abstract

A 5 years old cow was presented with traumatically lacerated tongue to the Department of Veterinary Surgery & Radiology, Bhubaneswar. Obligation of proper surgical techniques and maintenance of adequate postoperative measures rewarded with uneventful recovery.

Keywords: Cow; tongue; laceration

Introduction

The tongue is a highly mobile muscular structure and located on the floor of the oral cavity. Oral lacerations in cattle are associated with the same indiscriminate eating habit, oral prehension and suckling habits on objects in their environment such as barbed wire, needles, and thorns. The lacerations may involve the lips, buccal membranes, and the tongue (Patel *et al*, 2013). The present communication deals with successful surgical repair of traumatically lacerated tongue in a cow.

Case history

A 5 years old cow was presented with a protruded tongue and a history of vehicular accident on the previous day. Upon physical examination, it revealed a full thickness transverse laceration of the rostral portion of the tongue involving about 95% breadth of the tongue along with clinical signs of copious haemorrhagic ptyalism, malodorous breath and dysphagia. As bleeding wound margins indicated the viability of the tongue, it was decided for surgical repair (Dwivedi *et al*, 2013).



Fig.1. Cow with Traumatically lacerated tongue

Surgical management

Sedation was attained after intramuscular administration of Xylazine hydrochloride at a dose rate of 0.03mg/Kg BW (Xylaxin®, Indian Immunologicals Ltd.). Local anaesthetic 2% Lignocaine HCL (Lox 2%, Neon Labs Pvt. Ltd.) was locally infiltrated at lacerated wound edges in order to desensitize the site of operation. After sedation, animal was secured in lateral recumbency and mouth gag was used to open the oral cavity, which was lavaged with diluted povidone iodine solution. The wound margins of lacerated tongues were surgically debrided of necrotic and contaminated tissues. Suturing was performed using Catgut No. 1-0 in vertical mattress suturing pattern involving both sides of lacerated wound edges. The sutures ensured obliteration of the dead space and proper apposition of the lingual mucosa on the dorsal and ventral surfaces.

Postoperatively the animal owner was advised to continue the intramuscular antibiotic (Ceftriaxone @ 10 mg/kg BW, Zydacef 3gm®, Zydus AHL) and analgesic (Meloxicam @ 0.5 mg/kg BW, Zobid-M®, Zydus AHL) regimens for 5 days and 3 days, respectively. Fluid therapy (Intalyte @ 20ml/kg, Intas pharma Pvt. Ltd.) administered intravenously as a supportive therapy for 3 days. Oral cavity was lavaged with diluted povidone iodine solution followed by application of boroglycerine (Agrawal Pharmaceuticals) thrice daily. The animal was offered ad libitum rice water extract for first 3 days and rice gruel (2 litres/100 kg BW/day) for next 7 days, followed by gradual shifting to chaffed green fodder. 3 weeks later the owner reported normal prehension by the animal.

Discussion

Most lacerations heal without surgical intervention by using daily mouth lavage and systemic antibiotics and by feeding a soft diet, however in severe cases that involve body of the tongue are best managed surgically. 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. 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 resort (Dixon and Gerard, 2006; Duchrame. 2004; Dwivedi *et al.*, 2013; Patel *et al.*, 2013).

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