



ISSN (E): 2277- 7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2022; SP-11(3): 355-357
© 2022 TPI

www.thepharmajournal.com

Received: 01-01-2022

Accepted: 04-02-2022

Ankush Kumar

MVSc Scholar, Veterinary
Surgery and Radiology, Lala
Lajpat Rai University of
Veterinary and Animal Sciences,
Hisar, Haryana, India

Neeraj Arora

Assistant Professor, Veterinary
Surgery and Radiology, Lala
Lajpat Rai University of
Veterinary and Animal Sciences,
Hisar, Haryana, India

Satbir Sharma

Assistant Professor, Veterinary
Clinical Complex, Lala Lajpat
Rai University of Veterinary and
Animal Sciences, Hisar,
Haryana, India

Corresponding Author

Ankush Kumar

MVSc Scholar, Veterinary
Surgery and Radiology, Lala
Lajpat Rai University of
Veterinary and Animal Sciences,
Hisar, Haryana, India

Reconstruction of laceration of upper lip in a buffalo heifer: A case report

Ankush Kumar, Neeraj Arora and Satbir Sharma

DOI: <https://doi.org/10.22271/tpi.2022.v11.i3Sf.11263>

Abstract

An eleven month old Murrah buffalo heifer was presented with severe lacerated wound on upper lip due to accidental injury with chaff cutter. Reconstruction of the upper lip was done under standing sedation and local anesthesia after thorough cleaning of wound antiseptically and debridement of the wound edges. The animal was recovered uneventfully with start feeding semi-solid feed orally on 6th day followed by feeding on dry fodder on 10th day post-operatively. Skin sutures were removed on 14th day post-operatively without any complication.

Keywords: Buffalo, laceration, reconstruction, wound

Introduction

Wound is an injury, usually involving division of tissue or rupture of the integument or mucous membrane, due to external violence or some mechanical agency rather than disease (Rai *et al.*, 2017) [4]. Wound is most of the time an annoying ailment in productive animals. Similarly, it is bothersome for animal owners to manage. Also, bleeding at the wound site during sudden cuts and bites leaves animal owner in panic and dismay. Wounds still do get complicated in animals as they lick, mutilate, scratch and get infected as they soil themselves. Fly infestation and maggots in wide temperate climatic conditions of India worsen the situation and adds to the challenge of wound healing. So, a small unattended wound for days together can turn into severe microbial infection leading to septicemia, get infested with maggots and can even turn fatal for the animal (Basha *et al.*, 2019) [2].

Laceration of lip usually occurs in bovine due to injury caused by sharp objects like thorns, nails, wires, needles or injuries by sharp objects like glass pieces or agricultural equipment. A lacerated wound presents torn and irregular edges (Venugopalan, 2009) [5].

Case history and clinical observations

An eleven-month-old Murrah buffalo heifer was presented to the Veterinary Clinical Complex of LUVAS, Hisar, with a history of accidental injury by chaff cutter on upper lip one day before. The animal was not able to feed and drink properly due to the injury. On clinical examination, there was presence of lacerated wound of upper lip starting from the right nostril up to the level of dental pad on opposite side with serrated margins (Fig. 1). The wound was contaminated with mud and small particle of dry fodder along with presence of blood clots. The animal was active and alert with normal physiological parameters.

Treatment

The animal was given intravenous xylazine hydrochloride @ 0.02mg/kg body weight intravenously for standing sedation followed by local infiltration of 5mL 2% lignocaine hydrochloride solution at the site. The wound was thoroughly cleaned with 0.1% potassium permanganate antiseptic solution, followed by debridement of the wound with cotton gauge pieces gently to avoid excessive hemorrhage. Strepto-penicillin powder (1gm) was used topically on the wound to prevent infection after removing of dead tissue from the wound margins. Reconstruction of the lip was done by application of suture polyglactin 910 of size # 1-0 in continuous pattern for the suturing of muscles (Fig. 2) followed by application of braided silk of size # 1 in interrupted pattern for the skin apposition (Fig. 3). Post-operatively, injection enrofloxacin and gentamicin at the dose rate of 5mg/kg body weight each for 5 days and injection meloxicam at the dose rate of 0.4mg/kg body weight for 3 days were given intramuscularly.

Owner was advised for antiseptic dressing of the suture site daily with 0.2% povidone iodine solution for 10 days (Fig. 4). Skin sutures were removed at 14th post-operative day without any complication. Animal was kept on intravenous alimentation for 5 days followed by gradually start feeding

orally liquid or semi-solid diet from 6th post-operative day. After 10 days animal was gradually shifted from semi-solid diet to fresh green fodder (Fig. 5). The animal had shown uneventful recovery with complete healing of the wound without any post-operative complication.

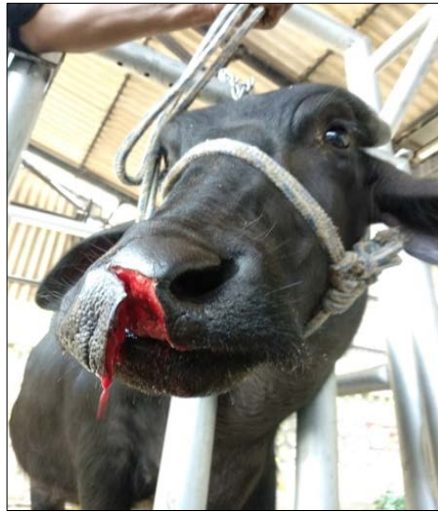
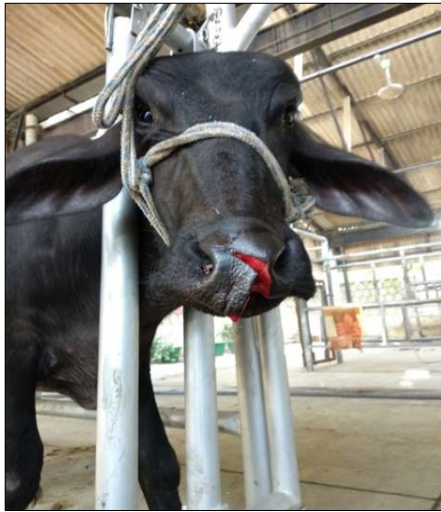


Fig 1: Photographs showing laceration of the upper lip after antiseptic cleaning and debridement of the wound

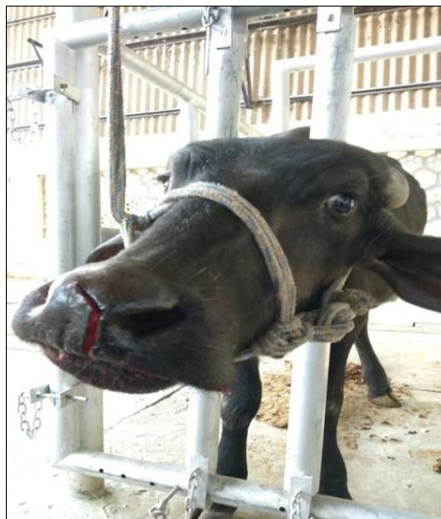


Fig 2: Photograph showing the wound after suturing of muscles with absorbable suture material



Fig 4: Photograph showing healing wound on 10th post-operative day



Fig 3: Photograph showing the wound after apposition of the wound margins with non-absorbable suture material



Fig 5: Photograph showing animal feeding on green fodder on 10th post-operative day

Discussion

The frequency of rubbing or tearing injuries at the nostrils from nose ropes fitted through the pierced hole was 54% in buffalo with almost half of the nose-pierced animals had lacerations and ulcerations where the nose rope had rubbed against the nose and among them 57% and 58% had severe and extended nose injuries, respectively (Alam *et al.*, 2010)^[1]. Here the injury was caused by sharp blade of chaff cutter.

In order to restrict the movement of the jaws, the animal was kept on intravenous alimentation for 5 days otherwise there were more chances of early dehiscence of sutures and impaired wound healing. There are many factors that pose a challenge before a surgeon for wound healing like movement of jaws during mastication and rumination together with presence of normal fauna and flora of buccal cavity, soiling of the suture site while wallowing in pond or grazing in fields, etc. (Kamalakar *et al.*, 2018)^[2]. Hence for relatively quick healing by avoiding chances of complications, intravenous alimentation was used in this case for first 5 post-operative days.

References

1. Alam MR, Gregory NG, Uddin MS, Jabbar MA, Chowdhury S, Debnath NC. Frequency of nose and tail injuries in cattle and water buffalo at livestock markets in Bangladesh. *Animal Welfare*. 2010;19:295-300.
2. Basha M, Kumar R, Jabeen U, Shah M, Gautam D, Majid A, *et al.* *Livestock Line*. 2019;12:4-7.
3. Kamalakar G, Mahesh R, Prasad VD. Reconstruction of lacerated wound on upper lip in a graded Murrah heifer—A case report. *Buffalo Bulletin*. 2018;35(1):1-4.
4. Rai S, Dutta TK, Mandal A, Behera R, Muhammad A, Karunakaran M. Wound and its management. ICAR-National Dairy Research Institute, Eastern Regional Station- Kalyani, West Bengal, 2017.
5. Venugopalan A. *Essentials of Veterinary Surgery*, 8th ed. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi, India, 2009.