MANAGEMENT OF TAIL AFFECTIONS IN BUFFALOES

G Satyanarayana¹, Makkena Sreenu²*, V Devi Prasad³ and G V Naidu⁴

*Corresponding Author: Makkena Sreenu, drmakkena@yahoo.co.in

INTRODUCTION
Buffalo is a more economic producer of milk than cow. The diseases that affect the productivity of the animal should be attended to prevent economic loss to the farmer. Hence the promising venture of buffalo farming calls for a detailed investigation during affections of tail. The tail is prone to various affections like dermatitis, trauma, necrosis, gangrene, fracture, paralysis, luxation, Diskospondylitis, etc. (Nuss and Fiest, 2011) Tumors of tail and tail rot occur occasionally. Diseases of the tail may be treated conservatively or by amputation cranial to the affected area. Most of these affections do not respond to the routine medical management and demand amputation of the tail. This paper discuss about the management of different tail affections in buffaloes.

MATERIALS AND METHODS
The animals presented to the hospital with the symptoms of tail affections were examined and the proper treatment was followed either by conservative or surgical methods. The animals brought for treatment were evaluated clinically and diagnosed based on the clinical symptoms. Some animals showed loss of skin over the tail, i.e., avulsion (Figure 1) fracture of the tail at upper third (Figure 2), middle (Figure 3), tip (Figure 4), dislocation/luxation trauma (Figure 5), dermatitis (Figure 6), tumor (Figure 7), varicosity (Figure 8) and gangrene and necrosis (Figures 9 and 10). The management of affections of tail vary

This article can be downloaded from http://www.ijasvm.com/currentissue.php
depending on the affection. The conditions reported under present study were managed with appropriate measures. The animals brought for treatment were evaluated clinically and diagnosed the case based on the clinical symptoms.
Figure 5: Trauma of the Tail Due to Contact of Floor in a Buffalo

Figure 6: Dermatitis of the Tail in a Buffalo

Figure 7: Trichoepithelioma of the Tail in a Buffalo

Figure 8: Varicosity of the Lateral Coccygeal Vein (Bilateral) in a Buffalo

Figure 9: Inflammation and Swelling of the Tail in a Buffalo

Figure 10: Necrosis of the Tip of the Tail in a Buffalo Due to Crush Injury
RESULTS AND DISCUSSION
Management of Tail Affections
The management of tail affections were tabulated and the details are shown in Table 1.

Avulsion of the Tail
All animals with avulsion were treated as out-patient cases by following dressing of the wound on the day of presentation after irrigation with 1:5,000 potassium permanganate and povidine iodine ointment topically. Amputation of tail proximal to the lesion was carried out subsequently. Melissa Kaplan's (2012) opined the injuries near the end of the tail often resulted in dry gangrene, and suggested that the tail should be dealt with amputations long before it got to the point of drying and becoming brittle.

Fracture of the Tail
The fracture cases at the tip were treated by applying boric acid paste and bandaged as conservative therapy. In cases which had complete fracture at middle or upper third or at the tip amputation was carried out. One case of the fractures at its middle was immobilized with external techniques. The tail stumps following amputation healed by first intention healing and epithelialization. The immobilization could repair the normal function of the tail after a month.

Dislocation/Luxation
Animals with dislocation/luxation were given prophylactic antibiotic therapy with 5 g of streptopenicillin (Bistrepen) for a period of 2-3 days along with antiseptic bandage using tincture benzoin so as to maintain antibiotic levels at the time of surgery. All the cases were subjected for amputation procedures on elective basis. Healing was observed in all the animals within 11-14 days. The fracture cases at the tip were treated by applying boric acid paste and bandage as conservative therapy. In cases which had complete fracture at middle or upper third or at the tip amputation was carried out. One case of the fractures at its middle was immobilized with external techniques. McDuffee et al. (1993) repaired 5th sacral vertebrae facture with 4.5 mm narrow dynamic compression plate in a heifer and 4th sacral body with two extra large plastic spinous process plates.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Condition</th>
<th>Treatment Followed</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Dermatitis (N = 3)</td>
<td>Parenteral Dicrysticin @ 5.5 gms intramuscularly for 5 Days</td>
<td>Animal showed uneventful recovery without any lesions</td>
</tr>
<tr>
<td>2.</td>
<td>Necrosis (N = 3)</td>
<td>Luke warm water therapy morning evening for 15 days and local Dicrysticin @ 5.5 gms injection above the seat of lesion Topical Loraxene ointment</td>
<td>Animal showed uneventful recovery without any lesions</td>
</tr>
<tr>
<td>3.</td>
<td>Trauma (N = 3)</td>
<td>Dressed with Povidine iodine ointment and topical Loraxene ointment</td>
<td>Animal showed uneventful recovery without any lesions</td>
</tr>
<tr>
<td>4.</td>
<td>Vericosity (N = 1)</td>
<td>Injection Vitamin A @ 4 ml intramuscularly on alternate days for 5 injections Polidocanal injection @ 6 ml intramuscularly for three consecutive weeks</td>
<td>Animal showed uneventful recovery without any lesions</td>
</tr>
<tr>
<td>5.</td>
<td>Dislocation (N = 1)</td>
<td>External bamboo splinting and bandaging for 3 weeks</td>
<td>Animal showed uneventful recovery without any lesions</td>
</tr>
</tbody>
</table>

Table 1: Conservative Treatment Followed to Treat Different Tail Affections of Buffaloes (N = 11)
Dermatitis
The case of dermatitis of tail were treated with Parenteral Dicrysticin @ 5.5 gms intramuscularly for 5 Days and topical application of Loraxene cream which made uneventful recovery. Three cases of trauma were recorded in the present study and dressed with Povidine iodine ointment and topical Loraxene ointment. The case recovered without any complications.

Trauma
Three cases of trauma were recorded in the present study and Dressed with Povidine iodine ointment and topical Loraxene ointment. The case recovered without any complication. Laxmen Ghimire (2012) repoted a case of Degnala disease in a buffalo and treated with anti liquor (zinc sulphate) @ 7 ml OD for 7 days, long acting Tetracyccline @ 1 ml/kg body weight intra muscularly, which was repeated after 72 hours.

Tumors
One cases of tumor recorded on the ventral aspect of the tail at its middle in the present study. Surgical excision was followed under epidural block and diagnosed as trichoepithelioma. This might be due to misplaced dermal tissue in to a wound caused earlier and healed by mixed intension. The skin edges were closed and post operative care in routine manner was carried along with antibiotic and analgesic administration. Suresh Kumar et al. (2012) reported a case of trichoepithelioma in a buffaloe and treated successfully with surgical excision.

Varicosity of Tail
Three cases of varicosity of vein were recorded in the present study. Injection Vitamin A @ 4 ml intramuscularly on alternate days for 5 injections and Polidocanal injection @ 6 ml intramuscularly for three consecutive weeks were administered.

One animal showed uneventful recovery without any lesions while remaining animals subjected for Amputation procedure. Kulkarni et al. (2005) reported that treatment of varicose vein by compression with bandage, firing, and ligation of vein above and below the swelling.

Necrosis and Gangrene
Three cases of necrosis at its early period treated with application of fomentation in morning and evening for 15 days and local Streptopencillin @ 250 mg injection above the seat of lesion and Topical application of Loraxene ointment as suggested by Drolia et al. (1991). Kerem Ural et al. (2007) treated by amputation and administration of antibiotics and topical antibacterial applications. Olatunji-Akioye et al. (2010) and Nuss and Feist (2011) suggested amputation cranial to the affected area.

Diseases of the tail did not respond to the routine medical management and demand amputation of the tail. Tail amputation in cattle was a very controversial subject because in some countries, it was carried out prophylactically for management reasons without any medical indication.

Surgical Technique
Amputation of the tail was carried by performing an epidural block by locating the first inter coccygeal space with the tip of a finger when the tail is manipulated up and down with the other hand. The 18 G hypodermic needle was introduced at an angle of 45° to the depth of about ½ to 1 inch to enter the vertebral canal. An amount of 8-10 ml of 2% lignocaine was administered slowly to achieve caudal desensitization of tail. After application of tourniquet at the base of the tail a ‘V’ shaped skin incision was made on the dorsal (Figure 11) and ventral surfaces of the tail.
to raise two triangular flaps of skin, the bases of which corresponded to the intervertebral space through which the disarticulation is to be effected. Cut through the intervertebral space. Hemorrhage during the operation was controlled by a tourniquet which is released subsequently and the bleeding points if any were ligatured or torsioned with haemostatic forceps. The skin flaps were sutured by horizontal mattress sutures using No: 2 braided silk. The excessive skin was trimmed for perfect apposition of the skin edges (Figure 12). A bandage in spiral reverse fashion was applied to protect the sutured wound.

The animals in the present study were sedated with the xylazine hydrochloride followed by either epidural block or ring block using 2% lignocaine. Hydrochloride. Sedation with Xylazine Hydrochloride made the animal calm and facilitated easy restraint for standing positions. Epidural analgesia and ring block found to be suitable for desensitization of tail and subsequent amputation procedures. Several researchers performed amputation of tail by administering sedatives and local infiltration techniques. The administration of xylazine helped in handling of the animal for injection of the local anesthetic for Epidural analgesia and ring block.

In the present study, tail amputation performed with V Incision on the dorsal and ventral surfaces of the tail given sufficient exposure to raise two triangular flaps of skin corresponding to the intervertebral space. Ligature of the two lateral and middle coccygeal artery were made very easily with tranfixation technique. Clear visualization of the inter vertebral space was achieved and perfect the disarticulation was carried. Hemorrhage during the operation was controlled effectively due to preplacement of a tourniquet which was released subsequently and the bleeding points if any ligatured or torsioned. Proper skin apposition was achieved with horizontal mattress due to triangular flaps. The excessive flaps were trimmed and sutured to have a perfect apposition. All the animals showed uneventful recovery.

REFERENCES


