Amputation of Tail with Varicose Veins in a Buffalo – A Case Report

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Rec. Date: Nov 20, 2014 09:04
Accept Date: Dec 18, 2014 06:47
Published Online: December 18, 2014
DOI 10.5455/ijlr.20141218064748

Abstract

A 9 years old Murrah crossbred she-buffalo, weighing about 500kg, presented with a varicose vein tail with alopecia, advanced stage of necrosis and gangrene. In order to prevent further progression of necrosis and gangrene, amputation of affected portion of the tail was practised under caudal epidural anaesthesia. Obligation of proper surgical techniques and maintenance of adequate postoperative measures rewarded with uneventful recovery.

Key words: Buffalo, Varicose vein, Amputation, Tail, Caudal Epidural Anaesthesia

Introduction

Varicose vein is a condition in which veins are markedly dilated as well as elongated to follow an irregular tortuous course to accommodate their excess length. Incidence of varicose veins in animals is low, as compared to human beings. In ruminants mostly lower limb veins are involved; however, the radial, cephalic, saphenous, mammary, scrotal and coccygeal vein involving inferior aspect of the trunk is also observed in cattle and buffaloes (Ramakrishna, 2001; Kulkarni et al., 2005), while distended metatarsal vein in horse is known as “blood spavin” and incidence is fairly often recorded (O’connnor, 2001; Kulkarni et al., 2005). Vein varicosis may either be congenital or acquired in origin due to repeated vascular trauma or proximal occlusion or insufficiency of valves or sequel to arteriovenous shunt. Due to poor venous drainage, the cutaneous vessels get engorged with blood and become dilated, tortuous, elongated and lose their elasticity to form varicose veins. This may result in diminished perfusion and peripheral local ischemia (Ramakrishna, 2001).

Case History and Clinical Observations

9 years old Murrah crossbred she-buffalo in good health weighing about 500kg was presented to Teaching Veterinary Clinical Complex (T.V.C.C.) of M.J.F. College of Veterinary and Animal Science,
RAJUVAS, Chomu, Jaipur, Rajasthan on 5th June 2014. Upon physical examination it was evident that the buffalo was suffering from vein varicosis of the coccygeal vein (Fig. 1). Along with coccygeal vein varicosis, this case was showing signs of alopecia, advanced stage of necrosis and gangrene around the distal end of the tail (Fig. 1). In the present case, no particular cause was ascertained which had accentuated to coccygeal vein varicosis; hence it was concluded to amputate the affected portion of the tail to prevent further progression of necrosis and gangrene.

**Figure 1**: Figure showing varicose vein in tail with signs of alopecia, advanced stage of necrosis and gangrene around the distal end of the tail (inset)

**Figure 2**: Figure showing ligation of lateral coccygeal vessels.

**Figure 3**: Figure showing apposed skin over the remnant coccygeal vertebra with non-absorbable sutures in simple interrupted manner
Treatment and Discussion

Surgery was conducted in standing position under caudal epidural anaesthesia by deposition of 5 ml of 2% Lidocaine (Xylocaine®; Astra Zeneca Ltd) local anaesthetic solution. Polyethylene tubing used for intravenous fluid administration was applied as tourniquet at the base of the tail and the amputation area was prepared for aseptic surgery. The exact point of coccygeal vertebrae disarticulation was determined by palpation which is proximal to the affected portion of tail encompassing varicosed vein and necrotic areas of tail. A semicircular skin incision was given, through the skin and muscle on the dorsal and ventral surfaces of the tail, 3cm more caudal than the intervertebral space to be incised. The blade inserted under the semicircular skin flap until the intervertebral space was reached by blunt dissection and transected. During the process prominent vessels at the lateral and ventral aspect of the remaining vertebra were identified and ligated with the help of absorbable suture (No. 1 Ethicon® chromic catgut) (Fig. 2). The tourniquet was temporarily released to identify additional significant vessels. After dusting Streptomycin + Penicillin powder, the skin was reapplied over the coccygeal vertebra with simple interrupted non-absorbable sutures (Fig. 3). Sutured skin was painted with povidone iodine solution and covered with a protective dressing of cotton gauze. Antibiotic cover of Streptomycin + Penicillin (5 gram of Dicrysticin – DS®, Zydus AHL ) was given once daily for a period of 6 days intramuscularly along with analgesic cover of Meloxicam 10ml (Meloxicam®, Intas Pharmaceuticals) intramuscular once daily for a period of 3 days. Owner was advised to spray fly repellent preparations on affected part along with regular dressing. During re-examination after 1.5 month, there was little evidence of the trauma to the affected tail could be seen as the healing ensued without any complication as a rule.

Acknowledgments

The authors are thankful to the Dean, M.J.F. College of Veterinary and Animal Science, Chomu, Jaipur, Rajasthan for their support and cooperation.

Conflict of interest

The authors declare that they have no competing interests.

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