

SURGICAL MANAGEMENT OF RUMINAL EVISCERATION THROUGH A DOG BITE WOUND IN A GOAT – A CASE REPORT

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ABSTRACT

A proper care, prompt reporting and immediate surgical intervention will save the life of the animal. A four year old pluriparous doe was presented with the history of dog bitten wound with eviscerated mass from the injured site at the left lateral aspect of the abdomen. The goat was kept on lateral recumbancy, on clinical examination revealed eviscerated rumen without any lacerations. Surgical area was prepared aseptically, under Inj. Xylazine as premedication and Inj. ketamine and inj. diazepam as induction anaesthesia reconstructive surgery was performed. Rumenotomy was performed to reduce the content and rumen was closed by the two rows of inversion suture. Peritoneum and transverse abdominus muscle were apposed by inversion suture pattern and oblique abdominus internus and externus muscle were apposed by interrupted suture pattern using catgut no 1. Skin was apposed by interrupted suture pattern using cotton thread (no 8). Postoperatively Inj. Tetanus toxoid (5 Lfu), ceftriaxone @ 10 mg per kg and meloxicam @ 0.5 mg per kg were given intramuscularly and the animal was maintained with fluid therapy, antibiotic and analgesic for five days and animal recovered after one week.

Key words: Dog Bite – Evisceration of Rumen – Surgical Management.

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INTRODUCTION

Evisceration of the abdominal contents is defined as the protrusion of the contents of abdominal cavity through a defect in the body wall exposing viscera to the environment (Cigdem *et al.*, 2006). The possible cause of abdominal evisceration due

to congenital abnormality, physical injury, muscular weakness or cutting the umbilical cord too close to abdomen and excess traction on an oversized fetus *etc.*, (Rathod *et al.*, 2013). In domestic animals acquired evisceration is generally caused by direct trauma, gore injury, fencing wire, penetrating foreign bodies (Slatter, 2003) and wound dehiscence. Evisceration may also happen as a post operative complication following surgery (Nelson, 1988). Regardless of the inciting cause, exposure and contamination of the abdominal viscera requires immediate surgical intervention (Smeak, 2003).

CASE HISTORY

A four year old pluriparous goat was presented to Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal with the eviscerated mass from the injured site at the left lateral aspect of the abdomen through bite wound. Animal was in lateral recumbancy and clinical examination revealed rumen was eviscerated without any lacerations (Fig.1) and bleating due to severe pain. Clinical examination revealed skin, muscle and peritoneum get teared and the internal organs get eviscerated.

DIAGNOSIS

Based on the history and clinical signs the case was diagnosed as ruminal evisceration through the dog bite wound. Physiological parameters were within the normal range and emergency surgical intervention was planned to reconstruct the rumen.

TREATMENT AND DISCUSSION

Surgical site was prepared aseptically. Under inj. xylazine premedication @ 0.05 mg/kg intramuscularly and inj.ketamine @ 2 mg per kg and inj.diazepam @ 0.25 mg per kg induction, reconstructive surgery was performed. The exposed rumen was washed with 1% potassium permanganate lotion to remove dust and debris followed by antiseptic solution (1% Povidone Iodine with normal saline), rumenotomy was performed and the contents were removed and rumen wall was closed by two layer of inversion suture (Cushing followed by Lambert) using catgut no 1. By gentle handling rumen was repositioned into the abdominal cavity and peritoneum and transverse abdominus muscle were closed by ford interlocking suture pattern using catgut no 1. Oblique abdominus internus and externus muscles were sutured by cross mattress using catgut no 1 (Fig.2). Skin was apposed by cross mattress using non absorbable suture material (cotton thread), Benzoin seal was placed over the skin incision. Animal was administered with Tetanus Toxoid (5 LFU) and inj. Ceftriazone (20 mg/kg) and inj.Meloxicam (0.5 mg/kg) and Ringers lactate and Dextrose normal saline (10 ml/ kg body weight) and post operatively animal was maintained with fluid therapy, broad spectrum antibiotics (Ceftriazone) and anti-inflammatory for 5 days and animal recovered uneventfully after one week. Post exposure ARV vaccine given at 0th day, 3th day, 7th day, 14th day and 28th day.

Goat and Sheep in India are generally reared on free range system, making it

susceptible for dog bite. One of the most common traumatic injuries in livestock is caused by dog bite. (Rajkumar *et al.*, 2018). The etiology for the present case was due to the dog bitten wound which leads deep bite wound through which rumen get eviscerated. Eviscerated organs are exposed to environment there are more chances for contamination and congestion (Bhuyan *et al.*, 2016). The case was presented without delay and contamination of the eviscerated contents was minimal. Emergency surgical operation were performed and life is revived. Principle of pre operative treatment include hemodynamic stabilization, antimicrobial treatment and extension of abdominal rent to prevent vascular compromise of eviscerated organ and application of sterile dressing until surgical intervention (William *et al.*, 2011). Major abdominal evisceration secondary to traumatic events with sharp objects is common in ruminants (Singh *et al.*, 1989). However blunt object injury usually results in traumatic body wall herniation (Shaw *et al.*, 2003). Careful and detailed examination of the viscera is also required to assess the prognosis and to assist owners in the decision-making process of such cases. The result of the present study indicate ruminal evisceration can be managed successfully without any complications when the surgery is attempted without any delay.

SUMMARY

A four year old pluriparous goat with rumen evisceration through dog bite wound on the lateral aspect was surgically managed and animal recovered uneventfully without any complications.

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Fig. 1. Eviscerated rumen through dog bite wound

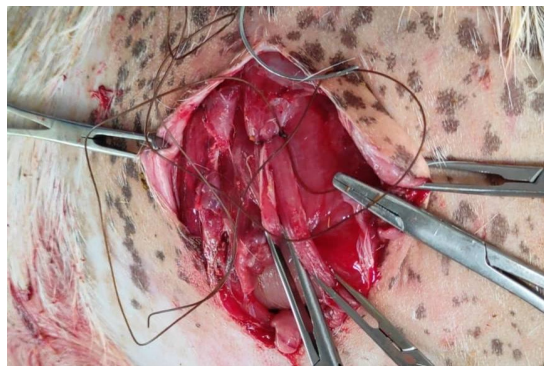


Fig. 2. Abdominal muscles closure



Fig. 3. Animal recover after surgery