

Surgical Management of Ileoceocolic Intussusception in a Cow

Malik Abu Rafee¹, Ajaz Ahmad Wani² and Shafqat Ahmad Sheikh²

Veterinary Hospital

Animal Husbandry Department

Kashmir - 192212 (Jammu and Kashmir)

Abstract

A cow was presented with anorexia and cessation of defecation for last five days and passing red blood tinged rectal mucus along with faeces. Per rectal palpation revealed intussusception near the pelvic brim. Surgical intervention to resect necrosed part of intestines, suture torn mesentery and anastomosis of viable ends of intestines under local anesthesia was undertaken. The animal recovered and resumed normal activity.

Keywords: Cattle; ileoceocolic; intussusception

Introduction

Intussusception refers to telescoping of one part of intestine (intussusceptum) distally into adjacent portion (intussusciens). Although sporadic occurrence in bovines has been documented (Pearson, 1971; Rathore *et al.*, 1977 and Kumar *et al.*, 2007) but intussusception is one of the most common causes of complete intestinal obstruction in cattle (Constable *et al.*, 1997, Tyagi and Singh, 1993). The present report describes successful surgical management of intussusception in a cow.

History and Symptomatology

A cow in her fourth parity was reported with history of anorexia and cessation of defecation for last five days. The temperature was 103.2°F. Respiration rate and heart rate were normal. Per rectal examination revealed an empty rectum with dark red blood tinged mucus. The intestine was empty but a hard mass was palpable near the pelvic brim. Based on history and per rectal examination, intussusception was diagnosed and surgical intervention was planned.

Materials and Methods

Surgery was performed in left lateral recumbency under anterior epidural anesthesia with 2% Lignocaine. The right paralumbar fossa and lower flank were prepared for aseptic surgery and laparotomy was performed in routine manner. The mass of intestines located cranioventral to pelvic brim was exteriorized which appeared sausage like and one part of intestine was invaginated into the other part (Fig. 1). The mesentery was dragged along with invaginated intestinal segment. An attempt was made

to reduce the intussusception but the invaginated part appeared necrosed. Necrosed portion was excised and mesentery was sutured in continuous pattern with chromic catgut no. 1. Beveling of one segment was undertaken to achieve diameter equal to opposite segment for better apposition. Suturing of intestine was started at the mesenteric end in schmieden pattern using 2/0 Vicryl. After suturing was completed, the lumen patency and leakage were checked. First sutured layer was inverted by second layer in Cushing pattern (Fig. 2). The anastomosed area of intestine was washed with normal saline solution before repositioning the intestine in abdominal cavity. The laparotomy incision was closed in routine manner. Post-operatively, animal was administered broad spectrum antibiotic, Intacef Tazo^a (Ceftriaxone and Tazobactam) 10 mg/ kg b. wt., i.m. BID, analgesic, Melonex^a plus (Meloxicam and Paracetamol) 10 ml i.m. daily for five days. Dextrose (5% DNS) with Tribivet^a (Vitamin B₁, B₆ and B₁₂) 10 ml was administered for three days. Rumenotonic (Rumentas^a) and Synbiotic (Ecotas^a) two boli each twice daily for four day onwards were also administered. Antiseptic dressing of wound was undertaken with 1% Povidone iodine solution daily. Sutures were removed on ninth day post-operatively (Fig. 3).

Results and Discussion

Intussusception usually occurs in jejunum and ileum and rarely in colon. The present report records intussusception in colon. Hyper peristalsis and mechanical causes are considered to be the common factor that leads to intussusception (Pearson and Pinsent, 1977). Bowel inflammation and drinking of very cold water are the common causes of hyper peristalsis. In our animal, the cause could not be

1. Veterinary Officer and Corresponding author.

E-mail: rafee188@gmail.com

a - Brand of Intas Animal Health, Ahmedabad



Fig. 1: Intussusception



Fig. 2: Surgery in progress



Fig. 3: Animal on ninth day post-operatively

established. Anorexia, colic and loss of rumination were the common symptom exhibited in intussusception.

Normal temperature and heart rate, marked reduction in milk yield, bilateral distension of abdomen, ruminal atony and dehydration also were noticed (Sharma, 1997). Intussusception are surgically repaired by means of resection and end to end anastomosis (Dabak *et al.*, 2001; Fontaine-Rodgerson and Rodgerson, 2001), as end to end anastomosis causes less chances of stricture and leakage of surgical site (Constable *et al.*, 1997). This technique was preferred in our case and proved effective (Fig. 3). The cattle started passing faeces the very next day after oral feeding was resumed.

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