



RESEARCH ARTICLE

Prolapse and 270° Tear of Rectum with Bowel Evisceration in a Goat

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Abstract

A case of rectal prolapse in a goat with protrusion of small intestine and mesentery through a tear of rectal wall, and its successful surgical correction is reported. A one year old adult doe was presented with a 270° tear of the prolapsed rectum through which the intestines and mesentery were eviscerated. Devitalized part of the mesentery was resected after ligation of supporting vessels, and apposed by lock stitch suture. The intestines and mesentery were then replaced into the abdomen, through the tear of rectum. The torn ends of the rectum were held against each other and were sutured from the luminal side to the serosal side using simple continuous pattern so as to invert the serosal edges and evert the mucosal edges. The prolapsed rectum was then reduced back into the pelvic cavity by applying gentle pressure, and was retained by a purse string suture around the anus. Animal had an uneventful recovery.

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INTRODUCTION

The prolapse of rectum can occur in all species of domestic animals like swine, ruminants, horses and carnivores (Anderson and Meisner, 2008). Prolapse of rectum occurs following straining, which may be associated with tenesmus (occurs with coccidiosis, colitis and other conditions), dysuria (as a complication of cystitis, urolithiasis, dystocia, neoplasia, and other conditions), neuropathy, chronic coughing or genetics (Haskell, 2004 and Steiner, 2004).

History and Clinical Findings

An adult doe about 1 year of age was presented with rectal prolapse along with protrusion of mesentery and small intestine. It was reported that the animal had a strained delivery the previous evening - during which the rectum had prolapsed, and on the next morning it was seen with red-and-pink coloured mass hanging out from the anus. Detailed examination revealed a 270° tear of the prolapsed rectum through which the intestines and mesentery were eviscerated (Fig.1). Telescoping of proximal segment of intestine was ruled out.

Treatment, Results and Discussion

Caudal epidural block was performed. Hair around the perineum was closely clipped. The prolapsed mass was cleaned with 1:1000 potassium permanganate solution. Devitalized part of the mesentery was resected after ligation of supporting vessels, and apposed by lock stitch suture using 1-0 PGA suture material. The intestines and

mesentery were then replaced into the abdomen, through the tear of rectum. The torn ends of the rectum were held against each other by Babcock's forceps and were sutured from the luminal side to the serosal side using simple continuous pattern, using No. 1 PGA, so as to invert the serosal edges and evert the mucosal edges (Fig.2). The prolapsed rectum was then reduced back into the pelvic cavity by applying gentle pressure, and was retained by a purse string suture around the anus (Fig.3). A dose of tetanus toxoid and a course of post-operative antibiotics were followed. The purse-string suture was removed after 7 days. Animal had an uneventful recovery.

Rectal prolapse can occur during strained delivery, as reported earlier. Care should be taken for the prolapsed rectum from any extraneous injury. The 270 degree tear in the present case could be attributed to any injury from the goat shed itself. Continued straining may be the reason for the subsequent bowel evisceration in this case. The eviscerated bowel could be easily replaced into the abdomen through the rectal tear, and repair of the tear was accomplished by simple continuous suture pattern. Diagnosis of rectal prolapse is not difficult during the physical examination, but care should be taken that prolapse does not contain other organs and that the rectum is not damaged further during the examination (Anderson and Meisner, 2008). The usual procedure for correction of rectal prolapse is its repositioning and application of a purse-string suture (Borobia-Belsué, 2006; Jean and Anderson, 2006). An opening should be left when tying the purse string so that defecation is possible. The suture usually is left in place for 5-10 days.

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Figure 1



Figure 2



Figure 3